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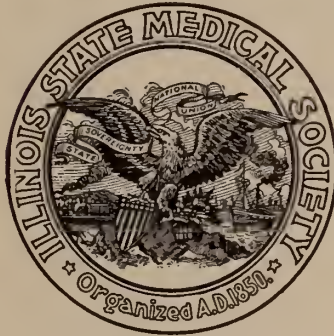
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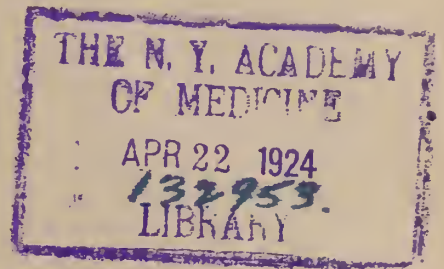
CHARLES J. WHALEN, M.D., Editor

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JULY TO DECEMBER, 1923



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INDEX TO VOLUME XLIV

July to December, 1923

This is an alphabetical index of articles and discussions arranged by leading words. It contains occasional cross references. Names of authors and men who discussed the papers are also included. Details of society proceedings, including the names

of papers read, officers elected, etc., can be located in proceedings under Societise, Editorials, News of the State, Marriages, Deaths. The subjects of editorials also appear alphabetically and are marked (E).

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Editorial

MEDICAL LEGISLATION

To those intimately in touch with the progress of medical legislation the session of the legislature which has just come to a close aroused considerable hope and also some misgivings as to the value of the laws in reference to the healing art which might be enacted.

On the whole the people of the state are to be congratulated in that their health and physical well being have been fairly well safeguarded by the laws which were enacted, and more particularly by the bills that were defeated. While Senate Bill No. 439, the new medical practice act, which passed both houses and has been signed by the governor is not quite as strong as most of us would like it to be, it is the best that could be secured under the circumstances, and on the whole quite satisfactory. It is a distinct improvement on previous medical practice acts, and as it has been most carefully drawn by a competent attorney, well versed in such matters, it is reasonable to suppose that it will stand the test of the courts.

As important as this positive accomplishment is, the defeat of a number of most vicious bills which would have given state recognition to a number of cults is of even greater moment.

Senate Bill No. 444, which would have given the chiropractors a separate board was one of the most objectionable and one of the most difficult to defeat. This bill would practically have negatived the medical practice act, and made it almost worthless. However, let us not glory too much in this victory, but let us fully realize how nearly this victory was turned into defeat and let us begin to get ready for the fight which is sure to be made along the same or similar lines two years hence. Every medical man in the state ought to keep himself informed about these matters. Keep in touch with his legislators. Whenever possible commend those legislators who did

good work, and not forget how they voted when the primaries come around about a year from now. The able legislative committee and a few workers prevented the passage of this bill this time, but unless the rank and file make an effort to protect themselves and the people whom they serve the legislators may next time listen to the ones who make the greatest noise even though they represent an infinitesimal minority.

The defeat of the Sheppard-Towner cooperation bill was a great moral victory for the medical profession. A few of our members were the first to sense the dangers of this measure, and while they received encouragement and help from other sources as the fight went on the brunt of the battle was fought by the medical profession and to them belongs most of the credit for the victory, but here again the credit belongs to a few far-seeing indomitable spirits rather than to the rank and file. When we consider that rarely in the history of legislation in Illinois has there been such a large and persistent lobby as was maintained in favor of this bill the victory is the more remarkable. We firmly believe that the good women who were so strongly in favor of this measure did not fully realize the viciousness of such legislation or they would not have taken the position they did.

We should now do two things: 1. Have some medical representative appear before every women's club in the state and present the objections to the bill; and 2, request our congressmen to make a determined fight in congress against all Federal Aid Schemes.

The members of the medical profession are best qualified to advise the people along these lines. Most layman are glad and willing to be advised by us in matters of this sort and willing to follow such advice, and it is our duty as individuals and as a profession to accept the responsibility thrust upon us and to fulfill our obligations to the public.

We expect a complete report on the legislature program of the Council will be available for the August issue of the JOURNAL.

DOCTORS THREATEN STRIKE

British Physicians Protest at Reduction in Fees

London, May 2.—Hundreds of physicians throughout Britain are planning to go on strike. Under the National Physicians' act, these physicians known as

"panel doctors" have been collecting \$2.40 yearly for each patient on their panels, and now that the government plans to reduce this amount 65 cents, the doctors have raised a big defense fund and are going to strike.

Some doctors have hundreds of "panel patients," the \$2.40 fee for whom is paid by the government, employers and certain approved societies. This 65-cent reduction would cut down their annual income tremendously.

Neville Chamberlain, new minister of health, will be asked to adjudicate the dispute.

LAY CONTROL OF MEDICINE

Lay control and dictation of the management of the institutions in which medical men are interested directly or indirectly is bound to come unless something is done to prevent it. Not alone this, but lay control of everything pertaining to the practice of medicine eventually will come unless the spineless doctors who fail to see the growing tendency of the times awaken to the danger and put on their fighting clothes in an attempt to save a reasonable amount of independence for themselves. This is no idle dream, and those who think differently will have occasion to learn the truth perhaps when it is too late.—*Indiana Medical Journal*, September 15, 1922.

NARCOTIC ADDICTION IN THE U. S.

CURBING ILLICIT TRAFFIC PRESENTS NEW PROBLEMS IN PENOLOGY—CURE OF ADDICTION AN UNSOLVED MEDICAL PROBLEM—DEPLORABLE CONDITIONS IN SOME FEDERAL PRISONS

JOHN W. H. CRIM

Assistant United States Attorney General

Mr. Crim, at a recent hearing before the Committee of the Judiciary of the House of Representatives, said, concerning the present narcotic drug situation in the United States:

"It is a problem for which we have no foundation in penology today. . . ."

"We are in the dark until the medical profession tells us what is to be done. . . ."

". . . that, I think, is as far as penology can go until the medical profession has found some way of curing them. . . ."

"The law has been directed at preventing physicians from selling narcotics and, by the same token, has forced the addict to enter into a criminal atmosphere to get them. . . ."

"All of which has stimulated the trade and occupation of the smuggler. . . ."

"Five years ago the smuggler and bootlegger in narcotics was unknown. . . ."

". . . the prison guard is a poorly paid man and he finds he can sell narcotics easily. Sometimes he can get a narcotic for \$20 to \$50 an ounce and he can sell it at \$1.50 for one-eighth of a grain, say \$16

a grain. Four-hundred eighty grains to the ounce, and he can put in his pocket a net profit of from \$3,000 to \$6,000 on an ounce of it."

All interesting statements that should have the earnest consideration of anyone interested in narcotic drug legislation.

NARCOTIC ADDICTION IN THE U. S.

CURBING ILLICIT TRAFFIC PRESENTS NEW PROBLEMS IN
PENOLOGY—CURE OF ADDICTION AN UNSOLVED MEDICAL
PROBLEM—DEPLORABLE CONDITIONS IN
SOME FEDERAL PRISONS.

By JOHN W. H. CRIM

Narcotic addiction presents a new problem in penology. It presents a problem which to this time has baffled the science of medicine. The crimes perpetrated by the narcotic addict are frequently without any tangible motive, such as avarice, jealousy, or intense hatred. In his case, the motive is elusive and may be prompted by things wholly imaginary and as fleeting as the moment. Then, again, the motive may be grounded in a deep mental obsession, complex, and cunning, suggestive of genius.

Many of the crimes which we have observed during the past few years of intense daring and boldness have frequently had behind them the promptings of a narcotic. In any event, the addict with the modern instrumentalities of crime, particularly the automobile, requires a much more efficient machine, as it were, in crime detection and prosecution than in the days when the fleeing criminal walked, used a horse, or a freight train. . . .

Twenty-five per cent. of the prisoners now incarcerated in United States prisons are drug addicts. The addict prisoner presents a difficult problem in the administration of our prisons. If he is a confirmed addict, a sudden denial of the drug to him is likely to result in death. Frequently it requires weeks of hospital treatment, with the administration of diminishing dosage, before it can be absolutely denied him in safety, and with a large percentage the craving for the drug is lifelong. There is not a large prison in America without the problem of preventing the sale of narcotics within its walls. The ingenuity of the prison addict and the bootlegger in this traffic seems to be without limit.

SMUGGLING OF NARCOTICS

Narcotics, in the main, enter the United States through the seaports, where it is procured by the bootlegger at a cost of about \$20 per ounce. It is peddled through the country to the addicts at a cost of \$2 for a "deck" or "shot" (using the parlance of that trade), which is about one-eighth of a grain. Thus it will be seen that the profit to the bootlegger is as much as \$7,660 an ounce, and the more efficient the Government is in the apprehension of the peddler, the greater the profits he is able to exact, and the greater the temptation to the criminal to engage in this traffic.

As a practical condition, the Government situation is this: the conscientious physician is loth to

and often will not prescribe for the addict; the addict is, therefore, in many instances practically unable to get the narcotic legitimately. He is driven by the cravings of an appetite, frequently excruciating pain (if he has been denied a narcotic for a considerable period of time) into criminal associations, wherein he can procure it only by the commission of crime. Once started on this downward path, he is ultimately apprehended and prosecuted as a criminal. Not infrequently he arranges a fictitious sale in the presence of an officer of the law, that he may be convicted, with the hope that incarceration may cure him. Once in prison, with the brand of felon, in association with other addicts, and the opportunity to obtain it within prison walls, any degree of correction, reformation, or cure, is a remote probability. The fact is on serving his sentence he is invariably a greater liability to society than before conviction.

IN ALL WALKS OF LIFE

Drug addiction prevails in every strata of human society. We find it in the homes of luxury, and in the squalid huts of the poverty-stricken. We find it among the brilliant and cultured, and we find it among the ignorant and stupid. The doctor, the lawyer, the artist, the business man, the mechanic, the laborer, each contributes his quota. The gruesome sight of the dissecting room may start the physician, or the gruelling days of loyal and faithful ministration to his patients may prompt him to continue his efforts by resorting to narcotic stimulation.

The habit may be formed as a result of its administration necessary in ameliorating racking pain in the pure and cultured woman; it may be formed by the hero in the hell of a trench in France. The long, weary hours incident to the life of the nurse may prompt narcotic stimulation. The chorus girl, with morning rehearsal, matinees, work every night, with the after-theater life of suppers, dancing, and drinking, may resort to this stimulation to keep up that vivacity necessary in her vocation. Occasionally, we find the wealthy addict spending his life in a sanitarium in apprehension that if he leaves it he may not be able to control himself. The immediate effect of addiction on the individual varies with the individual. With some it lulls as bromide, with others it exhilarates and makes more alert. Ultimately, however, as a rule, loathsome degradation is the end.

MEDICAL PROBLEM

To what extent it can be cured the medical profession has not answered. Occasionally we find a man, who has been an addict for years, and still able to control the habit to an extent wherein he has not become an obvious liability to society. I have observed absolutely no connection between this and the alcoholic habit.

Concretely, I submit that any solution of this problem must have for its basis a demonstrated policy from the medical profession.

Government must provide some asylum for the

unfortunate addict that the present conditions, which too frequently drive him into criminal associations, and ultimately crime, may be brought to an end. The door of hope must be kept open.

Local self-government throughout the country must see to it that the local officials make better efforts to destroy the illegitimate traffic in each community.

The United States Government must give greater consideration to the prevention of the introduction of narcotics into this country by more intense policing of the harbors and seaports. These sources—these gateways to the channels of this trade must be closed.

The Government, by international agreements and treaties, must see that this traffic is outlawed throughout the world and no narcotic manufactured anywhere, except under the eyes of the visitatorial power of a responsible government.

FEDERAL PRISONS

With the criminal addict, I have this suggestion, in so far as the United States Government is concerned, that Congress immediately enact into law the bill submitted by the Department of Justice for the taking over of a part of the Government reservation at Camp Grant and creating there an industrial reformatory, where first offenders between the ages of seventeen and thirty (not guilty of the more heinous crimes of treason, murder, rape, or arson) may be sent and taught the rudiments of a grammar-school curriculum and a useful trade under sanitary conditions. This will relieve the congestion with which we are now confronted in the Federal prisons, and which, I wish to assert with all of the emphasis I can command, is rapidly resulting in conditions so immoral as to be a stain on and a disgrace to the American Government.

In this connection, it is pertinent to point out that the United States Government has no prison for women; that in our efforts to arrange with the several States to care for them in their primitive, unhealthy, and congested prisons we are frequently face to face with conditions which, to say the least, strain the quality of mercy.

The problem of tuberculosis in prison life under present conditions can receive no higher consideration than a tent in the middle of a muddy and unhealthy exercise ground within prison walls. The United States prisons at Atlanta, Leavenworth, and McNeil Island are now so congested that it is utterly impossible to properly segregate the prisoners, a large percentage of whom are young men in their twenties, and many of whom have fought under the American flag. If they receive proper treatment—an opportunity to learn some useful trade, which is now denied them—may become assets rather than liabilities on their release. With changing conditions, the type of the Federal prisoner has changed. Fifteen years ago the Federal prisoner was a national-bank robber, counterfeiter, moonshiner, smuggler, or post-office robber, of middle age. The expansion of the jurisdiction of the Fed-

eral Government, with the incidental creation of new offenses, has given us a prisoner much younger in years and whose offense frequently does not involve moral turpitude. By removing from the present prisons this type, those in charge of the prisons will have an opportunity to segregate the prisoners in a way that will make it much more difficult to introduce narcotics in the prisons and to increase the chances of recovering many from a life of crime.

SOLVING THE NARCOTIC PROBLEM

AUTHORITIES GENERALLY AGREE THAT ITS SOLUTION RESTS WITH THE MEDICAL PROFESSION AND NOT WITH LAWYERS AND ADVOCATES OF REFORM
LEGISLATION—PRESENT LAWS INEFFECTIVE
BECAUSE BASED ON INSUFFICIENT INFORMATION

WHERE AUTHORITIES AGREE

"I believe that very little of these narcotic drugs are obtained either from physicians or druggists, but at least ninety percent or more of those using it obtain it from drug peddlers."—*Dr. Amos O. Squire.*

"I look upon drug addiction as a distinct disease. I believe when once firmly established that that individual is suffering from a definite disease, as much so as the man who has kidney disease, heart disease or any other organic disease of the body."—*Dr. W. C. Fowler.*

"You ask me what to do, Mr. Moore. I tell you frankly, I do not know. It is a problem that the lawyer cannot answer until he has more reliable information from the medical profession."—*Mr. John W. H. Crim.*

"Have you formulated your views as to how our domestic legislation might be modified or supplemented so as to perhaps afford a better check upon this evil?" Congressman R. Walton Moore, of Virginia, asked Mr. John W. H. Crim, Assistant Attorney General, United States Department of Justice, at a recent hearing in Washington—the "evil" referred to being the present narcotic drug situation.

"I am absolutely at sea," replied the Assistant Attorney General, "for the reason that fundamentally it (the narcotic evil) is a pathological matter, and until the medical profession and the scientists tell us what to do in handling these people we are not going to make very much progress." And, later, "It is a problem for which we have no foundation in penology today."

Which brings us back to the statement made six years ago in the report of the Whitney committee in New York State which was to the effect that "the constant use of narcotics produces a condition in the human body that many physicians of medical authority now recognize as a definite disease" and to the conclusion of the committee: that the solution of the problem was not to be found in legislation but in work and education.

The above quoted statement by Mr. Crim was

made at a hearing before the House of Representatives Committee on Foreign Affairs, securing evidence upon which it later reported favorably a resolution, "Requesting the President to urge upon the governments of certain nations the immediate necessity for limiting the production of habit-forming drugs and the raw materials from which they are made to the amount actually required for strictly medicinal and scientific purposes."

The following excerpts from statements made by board of health, prison and other physicians who testified at the hearings before the committee are of interest to pharmacists:

DR. WILLIAM C. FOWLER

Health Officer of the District of Columbia

There is one thing that I have listened to, one term used that is rather objectionable to me in connection with this subject, and that is the continued use of the words "dope fiend." I want to say, gentlemen, all of the addicts, and many of them are accidental addicts, are by no means fiends. You will find the addicts in all walks of life. You will find it in the ministry, the medical profession; you will find it in the legal profession and everywhere you go. Many of them are very high-grade citizens, persons who occupy high positions, both socially and economically. They are not fiends at all. When you use the word "fiends," I think that can be very properly applied to a great many of the underworld persons who were originally mentally and normally degenerates. I do not believe we ought to use the word "fiend." I look on drug addiction as a distinct disease. I believe when once firmly established that that individual is suffering from a definite disease, as much so as the man who has kidney disease, heart disease, or any other organic disease of the body. I base that statement upon this fact, that if you attempt to withdraw from the addict his drug, you will get a line of very definite physical symptoms, and I have no doubt at all in my own mind but what many persons have been permitted to die merely because they were unable to obtain the drug to enable them to function in a normal way. I think you will find that in attempting to withdraw the drug (I am speaking of a well-confirmed addict) you will often find a condition like this, probably considerable muscular trembling, severe abdominal pains, and pains in other portions of the body. The patient will have almost uncontrollable vomiting at times, and very serious diarrhoea. The heart and circulation is very much affected. The individuals are pale, and accompanied by a cold sweat, or, in other words, there is a distinct collapse.

When you come to take the addict of the lower world, you have there to start with, in many instances, a moral and mental degenerate. Many of these addicts began their addiction through a desire to gratify certain sensual pleasure. They imagine there is a great deal of pleasure in the use of the drug, and possibly some do derive a great deal of pleasure from the drug at the beginning, but sooner or later, if this habit continues, there is no pleasure;

it is all suffering, and some of the most intense suffering, both physical and mental. I think these people are entitled to our sympathy.

The men, or the group of persons who today are causing the principal trouble are what have been spoken here of as "dope peddlers." He is the man that ought to be reached. It is the illegal and illegitimate use of the drugs that is doing the most harm. There is no drug known to the medical profession today that will take the place of opium, absolutely none. You have got to have it, and in any legislation enacted I think the question of a proper amount of the drug for legitimate use should be very carefully considered.

DR. CHARLES E. TERRY

Chairman of the Committee on Habit Forming Drugs of the American Public Health Association

The underworld aspect of this problem has been presented here before the committee by a good many that have spoken, and I feel that that is but a very small part of the problem itself. It is a much bigger proposition than the underworld problem, and I think available records would show that the underworld addict forms but a very small percentage, certainly not over 20 per cent, of the total number of narcotic addicts.

The narcotic addict as a class is a sick man or woman. They are men and women who have become addicted chiefly through the therapeutic use of narcotic drugs. They are not guilty of any offense. Many have become addicted, sometimes because family doctors had to prescribe these drugs in chronic or subacute illnesses, and many men and women who take opium or an opium product for more than a brief period of time, say two or three or four weeks, unless he is a very uncommon exception to the general rule, becomes addicted. Changes that we do not understand, take place in his body chemistry, and he develops a pathological condition. He is a sick man from that time on, and he requires one of two things. He requires either intelligent treatment to break up this addiction, or this biochemical state developed, or he requires the drug of his addiction to be normal, to be able to do his work and maintain his position in society and in business.

To give you a concrete example that will at once eliminate, I think, every possible claim of vicious association or evil environment, or weak will, or anything of that kind, I would like to state that a baby, a new-born baby, born of an addicted mother, is a narcotic addict at birth. A few hours after the birth that baby will go into what is known as withdrawal symptoms, the same symptoms that an adult addict will go into, if he is given what is known at present as "cold turkey" if the opium drug is withdrawn. That baby for nine months—its blood contains morphine, because its mother's blood contained it, and it is inevitable that the baby's blood would contain it in solution, and 8, 10, or 12 hours, maybe a little longer after the birth, the baby will begin to sneeze, stretch and yawn, and get extremely restless, and will cry, drawing its legs up, vomiting

and developing an uncontrollable diarrhea, and if it does not get the drug of its addiction in suitable dose it may die, and a great many of them do die in collapse. If that drug is given until the milk flow of the mother is established on the third day, it can tide over, and then it will get the drug through the mother's milk, but it is still a narcotic addict, and in a few weeks, under proper treatment, it can be withdrawn from the drug, put on artificial feeding, and grow up into a healthy baby. Those babies may be perfectly normal physically at birth, and very frequently are. There is no reason why they should not be, but they have that addiction, and the baby can stand a dose of morphine that would kill a child seven years old.

They have a tolerance from birth, and have the dependence, which developed with this tolerance. We require a tolerance to a great many drugs, those enormous doses of cocaine to the coal-tar products, but all those drugs can be withdrawn without any serious symptoms. We do not develop a dependence on those drugs like on opium products. The dependence which is so vital, which is so powerful that unless it be supplied, or unless it could be corrected by suitable treatment, may lead to death if the drug is withdrawn. It is not at all uncommon for prisoners thrown into jail, addicted, whose condition is not recognized, or is not considered important enough to require medical treatment, to die. I have known a number of cases, and in practice I have been responsible for the death of three cases myself. I failed to recognize one case of congenital addiction. I only found out afterwards that the mother was addicted. Another child, two years old, was a paregoric baby. The mother had been an addict. The child was born addicted, and the mother recognized its need for opium, and put it on paregoric, and it had gotten up to very large doses of paregoric, in the neighborhood of two teaspoonfuls at a dose several times a day; less than 2 years old, this baby was, and one teaspoonful would put me sound asleep. I withdrew the paregoric from that baby and it died.

Another woman, middle aged, a woman in good physical health, organically sound, was treated while I was health officer of Jacksonville in the city hospital, treated by a popular treatment known as Townes-Lambert treatment, and died on the second day of withdrawal. She was treated to the best of our knowledge then. We know better now. She died in collapse. Her heart went back on her. In other words, we have got not only a vicious problem, but a moral problem, an underworld problem, and we have the pathologic state, just what it is nobody knows. Very little work has been done on it. In Europe, Germany, France, and Italy, a great deal of scientific work has been done on it, but unfortunately that work has not been correlated. Every man has worked along certain lines that interested him, and we have got, however, an accumulation of work done on the continent, which is of extreme importance, but which is not complete.

Much more work is needed, especially in this country. Our laboratory workers are clinical men, and have done practically nothing, with the exception of a handful, and we are trying apparently to legislate and demoralize and control by police measures against a condition which is a matter of pathology, a matter of biochemistry, a branch of medicine which is least understood of any branch of medicine, and concerning which we are only beginning to scratch the surface. It is a toxic condition which is not understood, but which must be understood if we would intelligently control the situation.

It is the general rule that hospitals taking the run in medical and surgical cases are not taking these cases. There is a very good reason for it. The great majority of physicians do not know how to handle them, and no one knows that better than the addict. As a matter of fact, the intelligent individual who becomes addicted to opium in some form, from whatever cause, and uses his common sense and observes the effects of the drug on him, does not become the dope fiend of the underworld we have heard about. He knows he has to have a certain definite dose of that drug, if he is to maintain his work and maintain his position in society. He knows that too much will render him unfit, and too little will do the same thing, and finds out how much he has to have and takes that amount. If that case goes to a physician and receives unintelligent treatment, as he will, nine cases out of ten, he is going to be made desperately sick, and he knows from experience he may die, because he has heard of those cases, and has known of them, and becomes rather an unsatisfactory patient, partly because the physician can not relieve his condition, and partly because he is only human and objects to an unwarranted amount of suffering in treatment. As a result they do not take these cases in the general hospitals. About the only public institution in the country—this is the general statement—that we have today are the jails and insane asylums.

The Chairman.—Your testimony shows these unfortunate people are very anxious to be cured, and it was testified here the other day they are the most grateful of all patients.

Doctor Terry.—I have known hundreds of them. I knew probably every case of narcotic addict in the city when I was health officer in Jacksonville. It was the first city in the country in 1910 to take this up as a public health problem. We made a very careful investigation through the operation of a local law, as to the extent of this, and its causes, and the type of people addicted, and we found all types were. We had preachers and prostitutes, and all types in between, professional men, responsible business men, club women, and every other type. There is no type of narcotic addict. They are of all types. Any sick man or woman may become a narcotic addict, and will become one if he is given a narcotic drug over a long period of time; it does not matter what his physical, mental, or moral fiber is. A dog will become a narcotic addict if you will

give it morphine over a period of weeks, and he will show withdrawal symptoms exactly like those shown by human beings when you stop the drug. It is not a vicious habit with a dog or with a baby.

I think the Harrison Act is a most excellent act, but I think the regulations and administration of the Harrison Act as interpreted is what has done the harm.

Mr. Hukriede.—What is your suggestion to overcome that?

Doctor Terry.—We need medical study, research, teaching in medical schools. This is a pathologic state. We have got to get away from legendary ideas of a vicious habit only and the immorality of it. We have got to teach our medical students about the narcotic-addicted baby. We have got to show them particular cases of narcotic addiction. This is a condition requiring the nicest discrimination, a condition which manifests itself in many ways as any disease. There is no routine, no panacea. . . .

DR. AMOS O. SQUIRE

Prison Physician, Sing Sing Prison, Ossining, N. Y.

It is my opinion, based upon some years' experience at Sing Sing Prison, that a certain per cent of drug users obtain it from those who smuggle it into our country. That drug addiction is on the increase there is no doubt in my mind. To illustrate, since 1919, comparing it with the year ending June, 1922, showed an increase of 900 per cent in the number of drug addicts admitted to Sing Sing Prison. There has been a radical increase since 1919. *I believe that very little of these narcotic drugs are obtained either from physicians or druggists, but at least 90 per cent or more of those using it obtain it from drug peddlers.*

Of course, the only evidence I have on that is the statement of the drug addict.

A very small per cent of the patients that come under our jurisdiction at prison began the use of drugs because of pain. The most prevalent drug used is heroin. Probably 75 per cent of the drug users admitted to prison take heroin. The next most frequent is morphine, and cocaine is the least used. We have had several who have taken all three. I believe that we would take an advanced step in the world if we eliminated entirely heroin being produced, as we could do very well without it in the practice of medicine, and it is the most convenient way for drug addicts to obtain their desired effect.

There is no comparison, in my mind, between the effect of alcohol and narcotic drugs upon the physical and mental status of the taker. There is some hope for one addicted to alcohol, but there appears to be little or no hope with one who starts the drug habit. The statement that "once an addict, always an addict," does not express the absolute truth, but it is not very far wrong in the underworld, as we have had patients come to prison suffering from drugs, spending several years with us, and within a month after their return to society would resume the drug habit.

I know that, because they will be sent back to prison.

A large number of men and women commit crime in order to obtain money, either in the form of grand larceny or robbery, to satisfy their craving. As I understand it, the average addict consumes from \$4 to \$8 a day worth of drugs, depending upon the greed of the drug peddler.

It is quite difficult for a casual observer to detect the user of drugs so long as his system is supplied with a substantive quantity.

This bears out the statement of the previous speaker, that there is no problem that we have to be more acute in than in the treatment of the drug addiction problem. I want to publicly deny the statement that I saw recently in the press in New York, where someone stated in court that it was as easy to get drugs in Sing Sing as it was on Broadway. That, to my mind, is an untruth. It is only when he is unable to procure it that it is apparent.

A person may take drugs for years without its being known. I remember one time when a patient came to me whom I had known most intimately for 20 years, who was a paregoric fiend. I had no knowledge of it until he came to me at one time and asked me if I would not give him some paregoric as he was not able to procure it just at that particular time.

I believe that a large per cent of the men who are convicted of crime who are drug addicts would not have committed the crime had it not been influenced by the drug habit. *I have never seen a user who did not desire to be freed from the habit*, and in fact are the more grateful patients that a physician has to deal with. I would, however, be very careful in limiting the amount being produced so as not to interfere with the legitimate use of morphine and cocaine for medical purposes.

I lay great stress on that because those of us who are practicing medicine know the valuable agency that morphine is in cancer and advanced tuberculosis.

DR. JOHN W. H. CRIM

Assistant Attorney General, United States Department of Justice

Mr. Moore.—Have you formulated your views as to how our domestic legislation might be modified or supplemented so as to perhaps afford a better check upon this evil?

Mr. Crim.—I have thought of it, and I am absolutely at sea, for the reason that fundamentally it is a pathological matter, and until the medical profession and the scientists tell us what to do in handling these people we are not going to make very much progress. I feel this way, that the present law regulates and reaches the better class of physicians. If anything, it has caused the more competent physicians to take the position that they would not administer narcotics, and has driven the addict to a lower class of physician, who is willing to take the chance for a little money, and ultimately in the crime itself. I think I can make that a little more specific. You take an addict in moderate circumstances, a boy who has come out of the army. He

goes to a physician, a high-class man in New Hampshire, and states to that physician frankly that he is addicted to taking twenty grains of morphine a day. The physician says, "Well, I think your case might be handled. You are robust, a strong-willed fellow, and the way to handle that would be to gradually reduce doses over a period of time, keep you at work and in a healthy environment. But there are a whole lot of people being prosecuted. This thing is handled in Washington, hundreds of miles from here. I do not want to stake my reputation here in this country on your case, and I may be getting in trouble. You will have to go to some one else."

That occurs too frequently under the present law. That addict is gradually driven to the underworld, where you have not only the crime of buying and selling narcotics, but every other sort of crime, and he there buys his drug. In a little while he has no legitimate source of income whereby he can procure the drug at the price, inordinate prices, he is required to pay in the underworld. Then he goes to stealing, robbing, burglary, or some other means to get funds to get this drug, or he will buy a bottle of it and sell out a part of it that he may get his drug in that way, and you drive that fellow right into prison.

We have cases where these men call up and say, "I am a drug addict. I am going to sell some opium down on the corner of such and such a street, at such and such an hour, and if you will come there you can apprehend me. I want to go to jail. I am afraid of myself." We have those cases. *You ask me what to do, Mr. Moore. I tell you frankly, I do not know.* It is a problem that the lawyer can not answer until he has more reliable information from the medical profession. I have hoped that in some way we might have an institute somewhere take this matter up, put 100 men under observation, and keep them under observation for a sufficient length of time for the medical profession to arrive at some definite conclusion.

Mr. Cooper.—Is there a doubt in your mind that the evidence now shows the dangerous character of the habit-forming drugs? Is that what you mean, that you want further investigation? Have we not information as to the dangerous character of the traffic and the dangerous habit-forming drugs?

Mr. Crim.—I want more investigation by the scientists on the drug addict. Now, as to what can be done with him, what ought to be done with him? We have the depraved man and the degenerate, and it would be just as well to exterminate them, but if these people can be cured, if these people can be prevented from becoming criminals, if they are merely sick people—as a very large number of scientists believe—the way to treat a sick man is not by criminal law, and we take that addict, put him in prison, keep him there during his sentence, let him out, and too frequently he is back again in a short time; and oftentimes when he first went to his physician he was a man of high ideals and high character.

I do not want to be dogmatic. I do not want you to feel, Mr. Congressman, that I am certain. I think the data we have been working on, the literature we have been working on, is data that may be found later to be the wrong theory.

Such statements as those given above are hopeful signs. It seems almost as if we might one day have a narcotic law based on scientific study and authentic information. It is time that we heeded the recommendation of the special committee of the United States Treasury Department which urged, in 1919, that there be instituted a campaign of education—beginning with the medical profession. We await the coming of the medical Moses who is to lead us out of the narcotic wilderness.—*Druggists Circular*.

AN ENDOCRINAL FACTOR IN GENERAL PARESIS

In endeavoring to ascertain what factors determine the selection of the three or four per cent of syphilitic individuals who develop general paresis, the author was led to examine a group of eighty-two unselected cases of this disease in the Manhattan State Hospital with reference to status lymphaticus. Only two in the group were found to give outspoken signs of status lymphaticus. On the other hand thirty-nine were found with trichosis in average or excessive degree, the latter being a recognized indication of adrenal hyperactivity. The conclusion reached is that, once infected with syphilis, individuals of low suprarenal functioning power develop paresis less frequently than strongly suprarenal individuals, and also that in the main the course of general paresis varies directly in rapidity according to the suprarenal vigor of the individual.—T. K. Davis (*The American Journal of the Medical Sciences*, March, 1922).

CALCIUM DEFICIENCIES: THEIR TREATMENT BY PARATHYROID

These authors find calcium present in the blood in two forms, ionized and combined. In normal coagulated blood the calcium is all in the ionized form. In ulcerative and toxemic conditions a part occurs in the combined form, and recovery is always accompanied by the disappearance of combined calcium from the blood. Intramuscular injection of ionized calcium salts was found to promote healing of ulcers, varicose, gastric, duodenal, cervical erosion, or gumma, while oral administration had no effect; but conjoined use of parathyroid extract secured complete healing. In sinusitis, tonsillitis, pyorrhea, otitis media, bacilluria, rheumatoid arthritis, chronic rheumatism, arteriosclerosis, eczema, chlorosis, sciatica and other chronic toxic states the same was found to be the case. This use of parathyroid substance is essentially physiological. It does not act specifically, but places the tissues under conditions more suitable for combating the effects of a toxic process.—W. R. Grove and H. W. C. Vines (*The British Medical Journal*, May 20, 1922).

Original Articles

SOME OF THE FACTORS UPON WHICH THE SUCCESSFUL USE OF LOCAL ANESTHESIA DEPENDS*

ROBERT EMMETT FARR, M. D.

MINNEAPOLIS

Although the claim is commonly made that inhalation anesthesia is entirely satisfactory for abdominal surgery it is apparent to anyone who will but observe the evolution which is taking place on all sides of us that the demand for methods which offer the patient greater advantages is becoming more urgent. All over the world reports are appearing which show the practical application of local anesthesia to this field and the surgeons who do not offer the advantages of the method, at least to their handicapped patients, are to be considered remiss in their obligations.

The advantages are so obvious that the subject now resolves itself into a consideration of whether or not local anesthesia can be used here with success, rather than whether or not it is superior—a question which is now settled in the affirmative in most surgeons' minds.

Actual facts are difficult to prove sometimes. Thus we have the statement and statistics of Gottstein that lung complications cannot be prevented or even reduced by the use of local anesthesia. Again we note that W. J. Mayo states that lung complications are as common after local as after general anesthesia. To date the amount of upper abdominal surgery done under local anesthesia is so small compared with that being done under general that definite proof of any difference in the postoperative complications of the two methods is lacking.

Admitting that many postoperative complications are embolic in origin no one as far as I know claims that all of them originate in this manner. There must be a fair percentage that are due to aspiration. This point was definitely proven and H. E. Robertson of the Mayo Clinic as well as others has found aspirated gastric contents within the pathological foci in the lung. Even if this cause is not common it is an established fact that the abolishment of the reflex mechanism which protects the lungs is a potent factor in the etiology of lung infections.

Finsterer's large number of massive resections of the stomach with not a single death from lung complications is but one of the striking examples of what may be accomplished by the use of local anesthesia in this field.

Too definite conclusions should not be drawn from the statements of those who use local only in their desperate risks or who give general anesthesia during the critical period of the operation and record the case as one done under local anesthesia.

In our hands local anesthesia has proven satisfactory in over 95 per cent of biliary and gastric surgery. This means satisfactory to our patients as well as to us. Its continued use has increased rather than reduced our early enthusiasm.

The solace offered to the surgeon by local anesthesia in the desperate surgical risk, whether due to systemic disease such as diabetes, cardiac or renal insufficiency, pulmonary tuberculosis, septicemia, advanced carcinoma, grave anemia, etc., or to the more acute conditions like biliary obstruction, perforated ulcer, hemorrhage, localized septic processes or acute intestinal obstruction, cannot be gainsaid. Surgeons are also beginning to realize that in order to find themselves equipped to offer the extreme cases the beneficent effects of the local method they must train themselves by applying it to the less hazardous cases.

A conscientious trial of local anesthesia by one who has prepared himself with some care to use the method cannot fail to bring to him the realization that there is a decided advantage in avoiding depletion, straining, cyanosis, pulmonary insufflation of septic material, hemorrhage, bodily trauma, local trauma and haste in operating in the upper abdomen. The presentation of the "silent field," splanchnic anesthesia, "negative intra-abdominal pressure," collapsed viscera and relaxed abdominal parietes cannot fail to impress one whose object it is to deal with pathological processes and at the same time conserve the resources of the patient to the fullest possible extent.

Technic.—In order to use local anesthesia successfully in abdominal surgery something more than the mere establishment of anesthesia of the nerves is required. The use of the method involves a consideration of the patient as a whole, from the mental as well as the physical stand-

*Presented at the 73rd annual meeting of the Illinois State Medical Society at Decatur, Illinois, May 16, 1923.

point, the establishment of anesthesia of the thoracic and splanchnic nerves of the corresponding region and a surgical technic befitting this form of anesthesia.

The process involves thoughtful consideration and training of all who come in contact with the patient in order to bring him through with the minimum mental anguish and maintain a psychological quiescence of the maximum degree. The cooperation of the patient, which is of the utmost importance, cannot be obtained in its fullness by a surgical team which has given this subject no particular study. Its accomplishment can only approach automatism after constant insistence upon adherence to certain well defined principles. Chief among these is a most scrupulous avoidance of all annoyances which can be excluded. All physical discomforts not connected with the operative work per se must be excluded, if possible, and the supervision of a trained psycho-anesthetist is indispensable provided routine success is to be expected.

The operating table must be comfortable. The patient's limbs must be restrained but not constricted. The reversed Trendelenberg and lateral tilts must be available and assumed without discomfort to the patient. Perfect illumination of deep cavities is essential so that traction may be avoided. The operation must usually be performed at the site of the existing pathology rather than forcibly dislodging the affected structures before severing their attachments.

The making of a most careful differential diagnosis and the proper planning of the incision are important adjuncts. The transverse or "L" incisions offer the best opportunity for the carrying out of surgical procedures in the upper abdomen. The facility with which these incisions may be made and closed when using an appropriate technic, the exposure offered during operation and the post-operative comfort during convalescence should make a stronger appeal to the surgeon than has apparently been the case.

Anesthesia Technic. One has three choices in the method of anesthetizing the thoracic nerves: Paravertebral Conduction Anesthesia, Infiltration Block bilaterally to the operative field and Direct Infiltration along the line of incision.

Paravertebral anesthesia should be used but rarely for this work. It demands the preparation of two fields and upon this ground alone

should be eliminated, if possible, on account of the added time and inconvenience to the surgical team and the added distress to the patient. Furthermore, the time required to master thoroughly a knowledge of its technic is prohibitive to the average surgeon and lastly even the expert frequently fails to obtain complete anesthesia as many of us have had an opportunity to note during recent years. It is interesting to observe in this connection that one of its most ardent advocates who came to this country a short time ago and who contended that those who did not use this method were unfamiliar with their neural anatomy, has now advanced his line of anesthesia to the anterior abdominal wall and advocates the *infiltration* method at the outer edge of the rectus and along the costal border. At the rate this gentleman is travelling forward along the thoracic nerves it is, in the writer's opinion, but a question of time and graceful opportunity until he will have reached the line of incision as the ideal region for placing the solution.

Splanchnic Anesthesia. To Kappis must go the credit of working out a method of reaching the splanchnic nerves from behind. From a practical standpoint the method has much the same objections as has paravertebral anesthesia. Experience shows also that more simple methods exist. Braun accomplishes the same end with the abdomen open, using the finger as a guide and introducing the solution into the splanchnic area.

Writer's Method. Realizing that the method of Braun had many points of advantage over the posterior method, the writer began using it many years ago. However as the introduction of the hand or finger deeply into the abdomen of the conscious patient is not always readily tolerated, the following plan has been substituted wherever it was found practicable. It depends for its success upon the manner in which the operation has been carried out up to the time splanchnic anesthesia is to be established. Provided the abdomen has been opened with a perfect negative pressure, the force of gravity enlisted, and judicious retraction has been employed, anterior splanchnic anesthesia may, as a rule, be induced directly under the surgeon's vision and without the least danger of the introduction of the solution into the patient's vessels. The retroperi-

toneal tissues should be thoroughly soaked with the solution which rapidly diffuses through the surrounding area.

Exposure, which is the goal to be striven for in using the local anesthesia method, is the key to success. When it can be obtained the other factors, which make the performance of intraperitoneal operations difficult or impossible or which make recourse to general anesthesia necessary cease, as a rule, to exist. A complete splanchnic anesthesia abolishes the sense of pain in the abdominal viscera although it does not completely inhibit the tendency to vomit. It is largely on account of vomiting that these operations must be carried out with more respect for the tissues than when the reflexes are inhibited by inhalation anesthesia. Traction is a cause of trauma and the nausea produced by it may thus be looked upon as a safety device in protecting the individual.

The method of approaching the upper abdominal cavity and of handling the viscera so as to bring about the proper "setting" for the establishment of splanchnic anesthesia is as follows: It must be borne in mind that each step in the procedure is dependent for success upon the successful accomplishment of all preceding steps and the adage "A chain is as strong as its weakest link" applies nowhere with more force than when carrying out a surgical procedure in the upper abdomen under local anesthesia. General bodily comfort for the patient is essential. The reversed Trendelenberg position is employed and the lateral tilt also where it is indicated. The incision is placed where it will allow the best possible access to the region involved. Complete abolition of the muscular reflexes is insured by the induction of local anesthesia. The avoidance of reflex contraction of tissue outside of the actual area of the operative maneuvers is accomplished by the use of elastic continuous retraction by which means the abdominal incision is gradually stretched, rather than torn or forced beyond its normal limits. Likewise the abdominal organs which do not glide away from the operative area through the force of gravity may be, through the agency of the spring retractor and a narrow gauze pack gently and gradually forced out of the field. Concomitant with the accomplishment of these details the cooperation of the patient through the agency of the psycho-anes-

thetist may be enlisted often with the most surprising satisfaction.

Vertical retraction of the abdominal wall, combined with the effect of gravity upon the movable viscera will serve to separate the parietes from the underlying organs, thus giving one the exposure which is so greatly desired.

A successful carrying out of the above detailed regime permits at once the accomplishment of two important essentials; first, the opportunity for making a comprehensive visual survey of the local conditions and second, if need be, the gentle palpation of any viscus by which its mobility may be ascertained or the "physiological test" which will be described below may be applied. However, it is unusual in the presence of a proper exposure for the necessity to arise for making extensive manipulation in order to arrive at a decision concerning the operative procedure which is to follow.

The Physiological Test. One occasionally meets with an abdominal condition in which upon exploration there remains a doubt regarding which organ harbors the offended nerves which have carried the impressions to the central nervous system. Manipulation of the suspected organs or tissues in the absence of intraperitoneal anesthesia may be the means of extracting from the patient a voluntary expression that the symptoms of which he formerly complained have been reproduced. As an aid to the diagnosis I know of nothing that is more satisfactory in borderline cases than this sign which we have designated the "Physiological Test."

The Stomach. The nerve supply of the stomach coming as it does from the splanchnic plexus is, as a rule, easily reached. In case much manipulation is anticipated it is well to establish splanchnic anesthesia before handling the stomach to any degree. The retroperitoneal space may be painlessly exposed by gently retracting the duodenum downward and at the same time elevating the border of the liver; from forty to fifty cc of solution may be introduced just beneath the peritoneum bilaterally to the common duct; the needle point should barely pierce this membrane and the increasing edema should be constantly manifest as the solution is injected.

For the more simple work such as anterior or posterior gastro-enterostomy a perfect exposure plus the appropriate technic will usually obviate

the necessity of introducing splanchnic anesthesia.

Anterior Gastro-enterostomy. The appropriate point upon the anterior wall is designated by the application of two pairs of tacking forceps. The colon is eviscerated through the cooperation of the patient who is instructed to inhale deeply and it is gently lifted upward until its mesentery is made tense, undue traction being avoided the while. With the operating table tilted to the right and the lower leaf of the abdominal incision gently elevated, the ligament of Trietze will come prominently into view. The appropriate point on the jejunum is then secured by two pairs of tacking forceps and carefully elevated as the colon falls into the abdominal cavity. After the placing of sponges for the maintenance of asepsis the serous or posterior suture is introduced and from this point on the gastric and jejunal walls are maintained in an elevated position by means of the ends of this suture, no clamps being applied. The stomach is first punctured at one end of the proposed stoma, the opening being completed by means of a pair of scissors with straight blades. Bleeding points are immediately caught in forceps and ligated. The same technic is followed in opening the jejunum and the anastomosis is then completed in the usual way.

Posterior Gastro-enterostomy.—The performance of this operation usually requires no intraperitoneal anesthesia. The only essential modifications of the classical method relate first, to the necessity for more careful manipulation and second, to the avoidance of clamps. The most potent factor in eliminating undue manipulation is the identification on the anterior stomach wall of the distal end of the proposed stoma by placing a tacking forceps upon it just anterior to the gastro-colic membrane. After elevating the mesocolon and cutting (not tearing) an opening in it, the appropriate point upon the posterior gastric wall may be immediately identified by means of these forceps. After placing a second tacking forceps opposite this and a third at the other end of the proposed stoma, the stomach may be gently drawn through the rent in the mesentery—assistance once more being gained by the patient's cooperation as he is encouraged to inhale deeply. The mesentery should now be anchored to the stomach wall, thus avoiding the necessity of making traction later on in an

attempt to carry out this procedure. In case there is the slightest danger of a "spill" upon opening the stomach, this contingency is best provided for by means of suction.

Gastric Resections. Local incision of ulcers, gastrotomy, gastrostomy, etc., require only the ideal anesthesia of the abdominal wall as described above. Clamps are not used in the excision of ulcers as a rule. They may injure the gastric or duodenal mucosa and their application may produce traction. It is our custom to make vertical retraction upon the stomach wall and excise the ulcer with the scissors, catching the bleeding vessels as they appear, using suction to avoid the "spill." Careful mobilization of the organ should be made by dividing the mesentery when indicated.

As one approaches the duodenum the organ begins to evidence more sensation and anterior splanchnic anesthesia is indicated.

Gastrectomy. We have performed this operation for cancer, ulcer and hour-glass stomach under anterior splanchnic anesthesia. It offers little difficulty in cases in which the costal margin does not interfere with the work. Even with good splanchnic anesthesia, however, severe traction will not be tolerated. We have in a number of instances turned back the costal border in order to obtain a better working space. This may seem to be a radical procedure but it requires but a few moments of time and greatly facilitates the operation.

Perforated Ulcer. During the past fifteen years we have operated upon all cases of perforated ulcer of the stomach and duodenum that have come under our care by the local anesthesia method. The most striking observation made in these cases is the rapidity with which the rigidity and pain disappear as soon as the abdominal wall is anesthetized. The working conditions are not so good, however, as in the chronic affections and one may, on account of the local condition, not care to introduce anterior splanchnic anesthesia for fear of spreading infection. As a rule, however, the ulcer is manifest upon opening the abdomen and may be dealt with with no great inconvenience to the patient. We have cauterized, excised and sutured, respectively, perforated ulcers and find the method most satisfactory under local anesthesia.

The Gall-Bladder. The writer's experience leads him to believe that when using local anes-

thetia surgical strategy is by far the most important element to success in the surgery of the gall-bladder and ducts. His ability to carry out operative procedures to the extent of 95 per cent during the past six years, while previous to that time the percentage was but 25 per cent, without any appreciable improvement in anesthesia methods offers no other conclusion. Furthermore, the fact that the appendix has been examined or removed in a goodly number of these cases where formerly it was allowed to remain is also significant. Success in this work depends largely upon strategical factors. The reversed Trendelenberg position is essential.

Cholecystostomy. A thorough examination of the ducts may be obtained by gently retracting the liver and gall bladder upward as the patient breathes deeply, any adhesions being severed as they appear. The obese, those with high lying livers and cases with advanced malignant or inflammatory disease may demand general anesthesia during this examination but simple drainage without further manipulation should not give the least difficulty.

Cholecystectomy. The technic which we have worked out for this operation which has been performed in 90 per cent of our cases is as follows: The duodenum is gently forced downward by means of a No. 6 wire retractor and a dry gauze sponge. In a similar manner the stomach is carried to the left and the colon to the right. The gall-bladder is then grasped by a forceps and a liberal amount of novocain solution injected between it and the liver. The patient is then asked by the psycho-anesthetist to breathe deeply. As the liver advances it is rotated within the abdomen. A series of forced inspirations with the forceps maintaining every advantage in position gained by the gall-bladder allows the opportunity for the introduction of anterior splanchnic anesthesia. This should be established in every case as soon as the opportunity presents. One may now remove the organ preferably fundus first.

In case the appendix is to be removed the patient is now placed in the Trendelenburg position, the lower, outer angle of the incision fully elevated and gentle traction made upon the cecum as it moves upward. Long forceps, one in each hand, will greatly aid in delivering this organ. Provided an extension of the incision is necessary it may be made at the rate of one inch per

minute so that little delay is occasioned by this contingency.

Conclusions. Success in performing surgical operations in the upper abdomen under local anesthesia can only be expected or achieved by the use of methods which are distinct from those so commonly employed with general anesthesia.

By the use of appropriate methods, surgery in this region can be done with dispatch and facility.

The opinions of those who have been unsuccessful in the past on account of failure to carry out the necessary details should be properly evaluated and more heed given to the merit of the local anesthesia method as demonstrated by those who are showing its real worth.

THE LAITY'S IDEA OF THE PHYSICIAN*

BUDA CARROLL KELLER

CHICAGO

Mr. Chairman and Members of the Medical Section of the Illinois State Medical Society: If you care at all for fiction I hope to be able to interest you, for I have a few anecdotes for you which are chock full of unadulterated lies, polite half-truths and delirious fancies. It is an unvarnished report, stripped of the local and the personal, and put together as accurately as we know how, of what 6,772 persons in and out of Chicago actually think of the medical profession and why they patronize other healing agencies.

The inquiry was suggested and has been entirely financed by Dr. James H. Hutton of the Jackson Park branch of the Chicago Medical Society, for the reason that he was anxious to get hold of some plain facts which would be of use to the committee you appointed at last year's convention to organize your educational campaign. For Dr. Hutton believed that in this, as in a business enterprise, that it would be easier for your committee to raise funds for a definite purpose than for a very indefinite and ambiguous end.

Dr. Hutton first talked this over with me from the standpoint of the general information which was the reason for the appointment of the committee—the falling away among certain of your patients to quacks and cults and practitioners of little value—the millions that the students of the redoubtable B. J. Palmer of Davenport are

*Read at the 73rd annual meeting of the Illinois State Medical Society, at Decatur, May 16, 1923.

earning every year—the vast fund of misinformation which the layman at large has about the policies and achievements of the medical profession.

Now, if the average business man—and it might be well for you to consider yourselves from that angle as well as the scientific—if the average business man selling service of the highest known grade found numbers of his potential customers not only not utilizing that service but using others far less meritorious at a far greater price, he would immediately send out trained workers to make a trade survey. However, in gathering information for the Illinois State Medical Society, we were debarred from that kind of inquiry. In the first place, queries going out to laymen under the name of the society would invite one of two things—either replies that would be flatteringly inaccurate from the people who would stand well with you or abuse, which would be even less accurate, from people who had a grudge against you.

The questionnaire form seemed unduly expensive because it is difficult to motivate the inquiries sufficiently in a purely impersonal research to receive more than six or seven per cent of replies, and even so, it would be necessary to affix a two-cent stamp to each request.

So we gathered together several volunteer workers; traveling salesmen, city salesmen, office people who had much contact with the general public, the welfare worker in one of the biggest middle-western industrial concerns, a club woman on the South Side, a society woman on the North Side—people who would come in contact with laymen in every walk of life. There were a few paid workers, too, who went up the highways and byways.

We asked them to do this: to find out from as many people as possible “What did you do the last time you were sick?” and, wherever it could be done gracefully, “What led you to do that?” They were instructed *not* to ask the definite question, “What do you have against the doctor?” for that would not only have robbed the reply of its spontaneity, but might have cast considerable suspicion upon the motive of the inquirer.

In this way we obtained some results that I think were more valuable than if they had been gone after in a more formal fashion. I doubt if one per cent of the persons listed in this report had any idea of the reason for which they were

quizzed. For the most fascinating subject in the world for any man or woman is himself; and the most fascinating thing he can tell about himself is his condition of health in exact detail. We had less trouble in getting information than in stopping the flow of information once it was started.

This report would not be worth a continental in a court of law, because not a name and address was filed from the thousands of replies tabulated, and the only classification made was by the sex of the person addressed and his location; that is to say, whether he was in Chicago or out of it. For if we were getting an exclusively feminine reaction or an exclusively city reaction, we wanted to know.

Replies were grouped under general heads from 5,719 persons in Chicago, from 1,053 persons out of Chicago—a total of 6,772. From this total only 931, or 13.5-16 per cent, had never dabbled in any cult or pseudo-science. Of the 931 with a perfect record, only 384, or 5.11-17 per cent, had no curiosity about any of said cults or quackery and no intention of experimenting just a bit with them.

Of the 5,841 who were directly against the physicians, directly for the other fellow, which is quite a different matter, or who had at some time or another been interested in the other fellow to the point of investing money in his healing methods, only 7 per cent. of them were directly opposed to the physician on account of some fault of his own; that is, malpractice, either real or imagined, or his failure as an individual to adapt himself to a situation. But 93 per cent of them had in mind these visions I was telling you about, due to confused impressions about you, your relationship with one another, your significance in social, economic, and scientific progress, and your long and arduous preparation for practice. Too many people had no conception of what M. D. meant; to them it divided honors with such titles as D. Ch. and worse.

We completely ignore the 931 with the perfect record. What we wanted was the composite of reasons why you were losing some business, not why you were keeping what you had. And in classifying reports on the 5,841, we were less interested in what was wrong with you than in what was definitely attractive about the other fellow.

As I said, we have all classes represented here

from day laborers to society leaders, with just about a 50-50 break between those above and those below middle class in property holdings. And we found what to us was a rather interesting fact—that the semi-foreign communities out on the west side of Chicago showed a smaller per cent experimenting with doubtful healing practices than the exclusive Hyde Park and North Shore residential districts.

We have here, then, twenty-two groups of answers. They are given merely as an indication of the spontaneous comment of nearly seven thousand persons. The fact that most of the statements made are untrue—that many of them are inconsistent one with another, would, to the business man, simply be an indication that he had better put the truth about himself and his service into mediums where these people can find them.

1. There is a large group of people who will tell you that the physician is negative. He tells you what you must *not* do, warns you of ensuing fatalities, the osteopath, chiropractor, does something concrete for you. You feel an immediate physical reaction. He tells you what to do and assures you of a chance to improve your condition. The mental reaction is better.

2. There are others who will tell you that the physician has too good a graft. He looks at you once and charges you five dollars for a prescription which he gets from a book on the shelf. You can do quite as well by going to the corner drug store and asking the pharmacist for the remedy which his customers have found satisfactory for your particular ailment.

3. There are those who say that doctors resent questions. They either shut you up summarily or overwhelm you by an utterly incomprehensible explanation.

4. Others say that doctors set themselves up as wiser, less fallible, than other people. One woman said that the last doctor she had was as pompous as a New Zealand devil dancer.

5. It is said that doctors habitually criticize treatments and healing methods of which they know nothing. How many doctors have questioned carefully a patient who has been helped by chiropractic treatment? How many of them have even seen a treatment? Yet they criticize it, regardless.

6. Some people said that the chiropractic schools at Davenport had really amazing equip-

ment; and that the students there worked so hard that they must be very competent when they came out.

7. Others say that physicians are not consistent in their ethical practices. The man who goes after business by the business method of advertising is likely to be thrown out of his society. Yet the doctor with a spectacular patient, and with enough of a graft with a city editor to exploit him, becomes a high-priced specialist and everybody is anxious to call him into consultation.

8. Numbers of people commented on the osteopathic advertisements which have been running in national magazines, and claimed to have been interested to the extent of trying out the treatments.

9. Another group says that the doctors' attitude toward one another is about as friendly as two strange bull dogs in a back yard. Suppose you dismiss one physician from a case and call another. He will come in, inspect you sorrowfully, shudder with horror as he sniffs at the bottle of medicine his predecessor left, and say in a deep voice: "You did well to send for me; in another hour you would have been no more. But *I* shall cure you!"

10. There are people who misunderstand your ethical ideals. They say that an honest man will protect a crook. That if another doctor has blundered disastrously on a case, you will do absolutely nothing to prevent his repeating the performance on any patient who may stray into the office.

11. There are those who believe that successful doctors use for their patients parts of the very same treatments that make the practitioners successful—diet, massage, adjustment, and let nature do the work—but they drag it out longer, clutter it up with useless medicine, make it cost more, and don't tell you the truth about it.

12. Others think that when you actually get down to cases, the doctors do the same things that they revile in their competitors. There is a famous clinic in the middle west which is so prosperous that nobody in the profession dares criticize it. Yet they used to flood all that part of the country with the advertising literature, report has it, and later entered into a deal with a railroad to advertise the town as the home of that clinic.

13. The cults—Science, New Thought, and a

dozen others—make you a factor in your own healing. It is subjective. Medicine treats you merely as an objective—a clod of a thing to be worked upon.

14. Another group says that doctors are always a bar to progress because they fight social legislation, such as the Sheppard-Towner bill, and the only news stories to be found in the public press show their motive to be a selfish financial one.

15. Others say that doctors won't talk competition from a fair angle. They will never admit *any* good in mental or related aids and their attitude bears the stamp of a narrow outlook, because such great movements as Christian Science could not exist so long or flourish so wonderfully without a foundation of truth.

16. The cults—and this comment was made of many—draw upon forces that are greater than man. The doctors' resources are human and mechanical!

17. There is a large group which refuses to believe that only the doctor who has studied allopathic medicine was competent to practice the art of healing. Yet the doctors have never given the slightest degree of approval to anything which did not originate in their own ranks. And what is more, the discovery must be told to the doctors in convention assembled before it reaches any other group of citizens, or it's no good!

18. Another group wondered if anyone interested in healing methods hadn't better read the expose of the medical profession recently appearing in a popular magazine. It showed how little most doctors knew about the drugs they prescribed.

19. Another group said that since doctors seem to be responsible for the vast group of drug addicts so much discussed now, that it is dangerous to let yourself be given drugs for any kind of illness and drugless healers are, therefore, best.

20. Another group says: "The last doctor I went to gave me the wrong treatment and I nearly died; I went to an osteopath, or a napro-path or a chiropractor, as the case may be, and was cured."

21. Others say that there are too many specialists. It is too expensive to be handed around from one to the other for each separate thing they think might be the matter with you. It is

better to go to some one who can take care of everything at once.

22. And, finally, there is the group that says that there is no way of telling which is the good doctor and which is the bad one, and it is too dangerous to experiment with them. Osteopathy—or each man's favorite practice—can't hurt you, and has cured every difficulty so far.

Gentlemen, you have been very much amused by several of these things. You were not half as amused as we were in getting them together.

It doesn't make any difference how wrong the people are or how much they are at fault in not knowing that they are wrong. It is a fact that almost seven thousand people honestly believe these things and that these seven thousand people are not confined to ditch diggers or dish washers or common laborers. Everyone of them is likely to call you frantically at 2 o'clock in the morning if there was something considered a real emergency, but for a pain in his back or a common cold, would go to 63rd Street or Wilson Avenue and get a chiropractor to give him "a punch in the back for a punch in the ticket." There is a margin of profit here from a purely business point of view which it might be well to consider. From a humanitarian point of view, some of you know of the aftermath of the practice that may come from that office.

Medicine is the one profession in the world where a man takes an independent attitude with a humanitarian point of view. It is the one profession in the world where you have constantly cut down your own income by constantly striving for preventive medicine.

Here is one of your biggest jobs. Whatever plan you have designed for your committee on educational propaganda, I think the dense ignorance of almost seven thousand people would be worth while putting the general public straight on. Now to most of you educational propaganda means a distorted form of advertising. But there is no advertising on earth of the display type merely that is going to work a reform in people's minds. They will discount it as mere propaganda. It would be hard to make it readable. It would be hard to make it say anything and stand out apart from the much-disliked practices who started out in the display game. There are other, more effective ways of reaching people humanly,—of going ahead along the line of telling the truth about medicine.

If the things are true about you men that your leaders say are true, the story of medicine and the story of the Illinois State Medical Society has enough punch in it to make one of the best, one of the most interesting stories ever told in America. And it seems to me that professional men can no longer afford, either practically or for the sake of their patients, to have people ignorant.

It means ninety-three per cent of these people do not care to come to you unless they think they are going to die. It means that they are actively interested in other things. The modern mind is a little bit over-stimulated.

If I were a business man and had invested a large sum of money, together with seven or eight years of my life, in preparing myself to do the sort of service you are able to do, and if the quality of my service was from year to year increasing, and if the potential customers for that service from year to year, country wide, was decreasing in proportion to the wealth of the country and the population of the country, then I think I would do something and I think I would do that quick.

Thank you.

DISCUSSION

DR. JAMES H. HUTTON, Chicago: Coming from the city where chiropractors and other cults flourish a little more luxuriously than in other sections of the country, I have been interested in knowing why their following was so rapidly increasing.

Having neither the time nor means myself I called on Miss Keller to find out for me; the results of whose investigation you have just heard. The report covered the work of about a year, and is even more favorable than I believed it would be. It shows only about seven per cent, I believe, are definitely inimical to us. The other ninety-three per cent are people who would be for us if correctly informed.

That is the job which our educational committee has on hand. We feel, of course, that the attitude of this ninety-three per cent is due to inexcusable ignorance and certainly their objections are not well founded.

The situation resembles, somewhat, that in which the bankers found themselves a few years ago. We are the banker's public. The medical profession occupies about the same relation to the various cults and quackeries that the banks and investment houses occupy to the fake stock salesman and fake promotor. Yet the banker had to tell us that he was the best person to give us financial advice before we believed him. The medical profession is of

more than average intelligence and yet we have never been conspicuous for seeking financial advice where the best could be obtained. The bankers had to put on a plan of education. They had the same trouble that we have had. It was one of the most profitable investments they ever made, profitable both from their standpoint and from ours, in that it saved us a lot of money and it saved them a lot of money which would have been frittered away otherwise.

Our campaign can do that thing for us and for the public, for the interests of the profession and the public are identical. As it stands today, the public goes to a lot of people who treat them when they are not ill and who can not cure them when they are sick. If this campaign can be put over and these people informed correctly, there is no reason why we cannot take care of them properly to the mutual advantage of the public and profession. But the thing has to be done right.

Many men have not contributed to this campaign because they were afraid the money would be used for advertising. Miss Keller has just told us that even if we were willing to forget our ethics and ideals to the extent of allowing such a thing to be done, and were able to finance a campaign of that sort it would still be a poor thing to do. It would in no way help to place us before the public in the right light. Miss Keller did not go into details as to how the thing could be done; she did, however, give that information to the Council this morning.

I hope that this report has impressed you as it did me, with the need of doing this thing and the need of supporting this committee in what they are about to do. I hope that those of you who have not already contributed your \$10.00 will do so before 8 o'clock tonight. I hope that each will make yourself a committee of one to assist the committee in the collection of funds to finance this important undertaking.

DR. EDWARD H. OCHSNER, Chicago: The millennium has arrived. The fondest dream and wish of the great Poet Burns has been fulfilled. You remember when he said:

"Oh wad some Pow'r the giftie gie us
To see ourselfs as others see us."

Miss Keller has put the mirror in front of us and she has given us an opportunity to see ourselves as over seven thousand of our fellow citizens see us. She has rendered a great service and I do not believe that the profession of the State of Illinois will ever be able to repay Dr. Hutton and Miss Keller for what they have done for us. I believe this is a little seed that is going to grow and grow and bear fruit.

Curiosity is a great element in human nature. A great deal of this running to the quacks is simply to satisfy curiosity. People know what we are and

what we stand for. They want to find out what the quacks are like.

The first time I heard Miss Keller I was very much impressed with her remarks. I preceded her at a meeting. I told the audience that in my opinion about ten per cent of the public insisted on being fooled. I am very much pleased to find that her statistics practically corroborate that statement. Ten per cent. of the American people and the people of the world will buy every gold brick that comes along. They will go to every new quack that comes to town and they will take every new patent medicine that is properly advertised. In my opinion that ten per cent. cannot be saved. There is no use trying. The other ninety per cent. are worth saving and I believe can be saved, and I believe that the suggestion that Miss Keller has made here that we make a greater effort to save them is worth following.

I believe much good will come from the educational campaign that this society is launching and I hope that everybody will put his shoulders to the wheel and help along.

Miss Keller has mentioned as one of her accusations against the profession that we are negative, that we are pessimistic. There is a reason for that, gentlemen.

I do not suppose that any man in the recent history of medicine has had a greater influence, and I do not know of anyone who has rendered a greater service to the medical profession, than has Professor Osler; and yet, as a by-product of his teachings there has been a wave of pessimism and nihilism sweeping over this country. I heard a dean of a great medical school say that for twenty years he had been going about the country in consultation and ninety per cent. of the cases in which he had been in consultation he had rendered no service to the patient. He was a mighty poor consultant. I am glad he stopped consulting. If I would have to say that I rendered service to only ten per cent. of the people who consult me, I would go out of the practice of medicine tomorrow.

As a profession we do not look after the little things as we should. We do not look after the backaches and the little discomforts people have and as a result they run to the quacks in their effort to get relief.

If we had attended to these matters as we should have and been less pessimistic in the last twenty years, the cults would not have such a field to feed on. We must get down to brass tacks and look after the little ills of humanity. We have rendered wonderful service in the serious ailments. We have not looked properly after the little things, and just as soon as we learn to do that a great source of income for the quacks will disappear.

A survey of this kind is relative. I think if Miss Keller would start a survey as to the opinion and the attitude of the public to the automobile repairmen, or the clergymen, or the lawyers, or the politicians of this country, the medical profession

would be far from coming out at the bottom of the list. I think such a survey would tell, after all, we are well thought of by the people and all we need to do, gentlemen, is to pay more attention to the so-called minor ailment and get behind the educational movement which the Illinois Medical Society is now launching and the profession of Illinois will soon take front rank in the estimation of its citizens.

DR. MEYER SOLOMON, Chicago: The paper was extremely interesting as were also the remarks of Dr. Ochsner. I think the majority of the population do look up to the medical profession in spite of the views that were presented to you.

A few months ago I was at a certain home gathering of about fifty people. I was the only physician present and it was a sort of friendly discussion group where you said what you wished. The topic for discussion that evening was, "The Value of the Philosophy of Coué." They asked me to open the discussion. I was very gentle in my handling of Coué.

I said that his was one of the ways to flee from reality; that it was not the worst way, that Christian Science was worse, etc. Almost everyone else attacked the medical profession very severely. Even the father of one physician who was there attacked the medical profession. I thought he was joking. I was not certain. They let me come back in my return discussion so that I was the last speaker. I spoke for fifteen minutes. I think I convinced almost everybody in the room that the medical profession was in a very peculiar position, that we were struggling for the truth, etc.

I also emphasized that scientific medicine was the thing I was talking about and endeavored to show by examples that the cults and isms did not know what they were doing. We must realize that the people are not to blame at all. They have not the information and they do not know.

The point brought out by the essayist, that of those who are immersed in health cults, fads, and faith cures, there are more people relatively amongst the so-called intelligent classes or those well off financially and socially than there are amongst the semi-foreign population is true, I believe, for this among other reasons: If you go through the Sheridan Road Section you have many people who dabble around in so-called new things. They have much leisure. They are looking for novelties, for sensation, for the new. And they are a ready soil for cults of all kinds.

There are many reasons for the existence of the cults. I will not discuss them, but the study of the origin and evolution of faith cures and health cults is so fascinating that the further you go into it, the more you are captivated, so that it becomes soon a big psychological problem for you to solve.

The paper I am to present before this section is "The Problem of the Nervous Patient." In that I somewhat answer the paper presented today. It is a very big field. The cults are spreading. Some-

thing must be done and I think the suggestion of what the program will be of the publicity committee is a very good one—of educating the people as to what the actual situation is.

For instance, the statement made by the essayist that one patient said that the chiropractor gets splendid training. If they could only read the report by Dr. McCrae and others, they would know that at the Palmer School of Chiropractic at Davenport, Iowa, they have a skeleton only. They do not know. Yet in spite of that, the people do look up to the medical profession and, with a little education from our end of it, I think we can turn the tables in our favor.

DR. E. P. SLOAN, Bloomington: I think that a great many of us are in the habit of discussing ultra-scientific and disputed points with the laity. The average conversation of the physicians with the laity includes a discussion of questions upon which we are not agreed and he explains one side of the controversy to laymen instead of medical men, talking it over with those who disagree with him.

I have listened to conversations between physicians and groups of the laity and I believe that nineteen times out of twenty the physician has been talking on a subject and about a subject in which we are not agreed. The effect of that is that the layman thinks that he is capable of judging not only scientific questions but of all other contentions that arise between physicians.

You see at times a physician takes up his differences with a competitor with his lay patients instead of arguing them with the competitor face to face. He presents his side of the argument to his patient and the competitor presents his side of the argument to his patient.

Now, I think that that is really responsible for a great deal of the lack of confidence of the laity in the doctors. We should have our own "law gospel" consisting of what we are all agreed upon and we should be very careful to be orthodox when we are talking to the laity. I do not believe that we should take up questions or our differences of opinion when talking with the laity. We should never act in such a way that a laymen will get the idea that we consider him capable of understanding questions that are not clear to educated physicians.

MISS KELLER: (Closing) There were just one or two points brought out that I am mighty glad to have the opportunity to comment upon.

In the first place, Dr. Solomon made an excellent one when he said that in fifteen minutes discussion with this group he was able to convert them. If fifteen minutes' discussion will do it with that kind of a group, a more formal discussion will do it with a larger group.

I would bring the practice of medicine into the white light and show them you are not afraid of the thing. It will make the other fellows scuttle like insects when you lift a stone.

Certain comments would never have been made

if these persons had read the report quoted by Dr. Solomon. Now, that is the whole point of everything I have to say: give the people the gist of those reports to read!

If you will take those facts about medicine, those things about you that are definitely constructive, you can bring yourselves into enough of the right sort of publicity so that you can show a very perceptible increase in your immediate business.

Of course, I agree with Dr. Ochsner that this is only relative. The American people are born to complain about the other fellow. But we do see a very definite decrease in the number of people you have the opportunity of reaching for minor affairs. The fact that you are first in the estimation and esteem of the common people I think is proven in the fact that you are the men they turn to in emergency, always. The man in whom they have great faith they call at the last. It is the margin between the fellow with nothing the matter with him except a case of nerves or self-conceit which requires his family to sympathize with him, and the woman or child who has a serious ailment and is treated by this quack or chiropractor, whom you must reach for their own sakes.

Now, I went over this as hurriedly as I could, to compress the facts that I had. They are facts only in this respect, that they are an accurate report of what we found. They are not facts, and this is not to be taken as scientific, in the sense that this is absolute or that it is final. When I have talked about this to branches of the medical society I have called it "straws in the wind." It is merely an indication of how a great number of people feel about you and your job.

If you have any questions about the methods used or the results, I would be glad to clear that up. If not, I think Dr. Ochsner stated the whole thing in a nut-shell when he said that you do stand first in the estimation of the public but you have not emphasized minor ailments.

It is quite true that the people who are seeking after things to amuse them and diversions of all kinds are the people most susceptible to these arguments presented. Looking at it as business men, you have a large percentage of a possible clientele, that, for no reason that you could not controvert, have invested their money in other lines. The only remedy you will consider is one which you use in a way not contrary to your principles. I went at this with an uncomplimentary idea about ethics in medicine. I have changed my mind. I see a reason for your principles. I see a principle behind your ethical standards. There is just one thing to remember. If you tell people not only what you think they ought to know, but what they want to know; if you tell them not only the things that are good for them, but the things that you can see interest them and have a bearing upon themselves and their children and their welfare, you will get a lot further than from expenditures

for publicity of the ancient method which is the didactic and the dogmatic; the formal and the stereotyped.

THE PREVENTION OF BIRTH INJURIES OF THE CHILD.

HUGO EHRENFEST, M. D., F. A. C. S.,
ST. LOUIS, MO.

TYPES AND FREQUENCY OF INJURIES.

The present interest of obstetricians in the traumatization of the child in labor must be credited to certain German writers who about ten years ago began to emphasize the importance of intracranial birth injuries, especially of lacerations of the tentorium, in the causation of still-birth and death within the first few days of life. Systematic search for such injuries from year to year yielded an ever increasing percentage figure, particularly since the more general adoption of an improved method of opening the infant's skull at post mortem. I had occasion in previous papers¹ and in my book² to point to the noteworthy fact that practically all recent contributors, including some American authors, are in entire agreement that evidences of an introcephalic traumatic lesion of some sort can be discovered in about 40 per cent of still-born infants or those dying soon after birth. Not in all these cases, however, does the discovered intracranial injury really account for the death of the child. In a definite percentage the lesion represents only an incidental finding. We, therefore, know from autopsy findings, that not all the intracranial injuries sustained in birth necessarily prove fatal, and thus must conclude, that they actually occur with a frequency still higher than that ascertained in the study of newborn infants coming to post mortem.

It furthermore has been demonstrated by routine ophthalmoscopic examination of newborn infants that marked traumatic changes within the bulbus, chiefly hemorrhages, are far from rare. Visible retinal hemorrhages e. g. have been calculated to occur approximately in 20 per cent of the cases after normal spontaneous labors, the figure rising to 50 per cent for infants born by women with contracted pelves.

There is ample evidence for the statement that about in 10 per cent of the forceps extractions a facial nerve is traumatized.

It is impossible to quote any reliable figures concerning the incidence of clavicular fractures. As a matter of fact in the overwhelming majority of instances this particular injury remains unrecognized if not later, rather accidentally, discovered by nurse or mother if a large or painful callus develops. One investigator, after carefully studying the material of a large maternity service in which all the patients were handled more or less expertly, asserted that between one and two broken clavicles could be found in every one hundred newborn babies, with a percentage of six after version and extraction, and of eight after forceps operations. Such a claim seemed preposterous but confirmatory proof soon was furnished from other sources.

That various other bones of the skeleton, particularly humerus and femur, are more frequently fractured in the course of delivery than medical literature would seem to indicate, presumably will not be denied by anyone present in this gathering.

Actually recorded in literature we can find cases of dislocated and completely torn out eyes, fractured jaws, dislocated shoulder joints, torn off arms and heads, ruptures of liver, spleen and hollow abdominal organs, long cuts in the scalp made in the attempt to open the membranes, even a few instances of deep perineal lacerations in breech presentations produced in the effort to dilate the infant's anus, mistaken for a seemingly unyielding cervix.

Rough and hasty manipulations of the asphyxiated baby, according to authentic observations, may result in more or less pronounced injuries to palate and tongue, rupture of alveoli in the lung, fractures in various sections of the spinal column, cord injuries and internal abdominal traumatizations.

Therefore, I feel fully justified in asserting that a very large number of infants are more or less severely injured in the course of birth. A considerable percentage of them succumb immediately, seemingly as the result of asphyxiation since the true cause of death could be ascertained only by an autopsy. Others survive, and either recover or remain permanently injured, physically or mentally. In how many of the latter

*Read before Henry-Warren-Knox Tri-County Meeting, Oct. 12, 1922.

1. Intracranial Birth Trauma of the Newborn from the Standpoint of the Obstetrician. *Jour. A. M. A.*, 1921, LXXVII, 103. Better Obstetrics and the Problem of the Birth Injuries of the Newborn Infant. *Am. Jl. of Obst. and Gyn.*, 1922, IV, 61.

2. Birth Injuries of the Child. D. Appleton & Co., 1922.

group the defect, often manifesting itself only later in life, and then incorrectly diagnosed as congenital, though indeed it is not of prenatal but actually of natal origin, is still an open question to which an answer will have to be furnished some day. The problem of birth injuries of the child is a most important one in present day efforts to improve the practice of obstetrics, it is a problem most inadequately considered in the modern text-book of obstetrics.

However, this question is at present most intensively studied in all its various aspects and these investigations have already yielded some very definite information concerning the mechanical and other factors, directly or only indirectly, responsible for such traumatisms. Therefore it is justifiable and feasible to discuss, in general, the problem of prevention of these injuries, and to suggest, more in detail, certain necessary precautions or changes in customary obstetric technic.

RESPONSIBILITY FOR INJURIES

At the outset it may be stated that responsibility for such injuries does not always rest with the attending physician. There is practically not one of the innumerable possible traumatizations, from intracranial and intra-abdominal hemorrhages down to the fracture of almost any bone in the skeleton, which has not been authentically observed also after spontaneous labors, usually designated as "normal" labors, simply because they had not been terminated by artificial means. In such instances of injury sustained during spontaneous labor, however, as a rule some condition can be found which satisfactorily accounts for the evidently abnormal vulnerability of the child. In a case of excessive fragility of all the bones of the skeleton, a condition known in medical literature for a long time as osteopsathyrosis, the slightest pressure exerted against a long bone, either by pelvis or even soft structures during labor, or by the physician in the course of required manipulations during delivery, will almost unavoidably result in a fracture.

All observers agree that prematurity plays a very important rôle in the etiology of birth injuries. The fact is now firmly established that the compression of the head of an immature fetus in its passage through a contracted pelvis, or even only through a not fully dilated cervix or a rigid

vulvar ring, may prove disastrous to the fragile meninges or the soft brain tissue. The latter type of birth traumatization, indeed, seems practically unknown except in very small fetuses. Without anticipating what I shall have to say further on, I might call to mind the obvious fact that even a small fetus will pass through the unprepared birth channels, and thus will be injured in the passage, only when he is actually forced through them. Without further emphasis you will yourselves then come to the inevitable conclusion that pituitrin can not fail to prove a particularly treacherous remedy in the management of a premature labor. Just this example will further demonstrate to you that even in a spontaneous labor, that is one not ended by an operation, responsibility for an injury to the child might rest with the attending physician. He is doing harm most innocently if his attention never before has been called to this particular danger inherent to a procedure all too common at the present day.

It may prove difficult to charge up a brachial palsy against the attending accoucheur, but can there remain any doubt that definite manipulations on the part of the attendant must have at least something to do with the origin of this distressing condition, when a French author was able to record a veritable endemic, thirty cases of Erb's palsy, in the practice of a single midwife?

That wonderful combination of diagnostic ability, sound judgment and manual dexterity, briefly termed skill, and in the practice of obstetrics acquired by careful observation, by deliberate action without undue haste and much personal experience, after all seems to offer to the child the best, though not an unfailing, protection against injury.

In the light of the information now in our possession we can say that the obstetrician can not any longer be blamed for all the lighter and severer injuries sustained by the child in the course of birth. This marks an important step forward in dealing with this problem. Well aware of the fact that at present decidedly less odium rests on him, the attending physician presumably will more readily look for such injuries. At least as far as the intracerebral birth hemorrhages are concerned, prompter search for them and earlier recognition of their existence surely will save

many a child now doomed to die or, still worse, to live as physical or mental defective.

If birth injuries are common, if they endanger so frequently the life or future health of the child, and if such traumas in part are the result of faulty management of labor or of reprehensible manipulation of the newborn infant, the problem of their prevention certainly is worthy of our most serious consideration.

PREVENTIVE MEASURES

Acceptable suggestions for their prevention necessarily must be based on the various conditions which directly or indirectly are responsible for their occurrence. As already stated these etiologic factors are now fairly well understood. It will be necessary to refer to them in order to make clear to you the reason for each of the various precautionary measures I am about to suggest to you. Since I have presented in my book in detail the clinical observations, and pathologic and experimental investigations which have revealed the causative principles of practically all known injuries of the child, I feel justified in stating them in this connection but briefly and in a rather dogmatic form.

Indentations and Fractures of Skull Bones. They are the result of excessive pressure within a limited area exerted from without. Less often this pressure is caused directly by a forceps blade, more often by a bony ridge protruding into the pelvic canal, along which the head is passed by forceful traction. This obstruction most often is presented by the sharply protruding promontory in a flat rachitic pelvis, occasionally by an exostosis situated on the posterior aspect of the symphysis or of another pelvic bone, by an ankylosed coccyx or an abnormally bent sciatic spine.

Rules for the prevention of injuries of the skull bones during forceps extractions may then be formulated as follows:

Before the blades are applied to the fetal head it is indispensable to ascertain three facts, namely, the absence of any marked disproportion between head and pelvis, the absence of any anomalous bone protrusion, and finally the exact relation of the head to the pelvis.

Forceps can never be employed without great danger to the child for the purpose of overcoming marked mechanical difficulties if either the head is abnormally large or the pelvis as a whole or only in certain diameters too small. Forceps

should not be used to effect a reduction in the size of the head, as is almost unavoidable when applied to a head still high above the pelvic inlet and, therefore, entirely un moulded.

Only an exact diagnosis of the position, and of the degree of flexion and rotation of the head, will permit the proper application of the blades and a scientifically correct extraction during which the operator with every traction changes its direction so as to conform accurately with the normal mechanism of the second stage of labor. If this rule is disregarded, unavoidably a longer head diameter is forcibly pulled through relatively too short a pelvic diameter with great danger to the integrity of the skull bones.

When forceps are applied either to a large head or, in case of still incompleting rotation, along an oblique diameter which is always longer than the bitemporal diameter, it is essential, during extraction, to avoid any severe compression of the necessarily separated handles. In some instruments the handles can be steadied at the required distance from each other by a set screw provided for the purpose, otherwise a folded sterile towel should be pushed into the angle just below the lock. Failure to take this precaution may cause the tip of one blade to dig deeply into the skull, especially if traction has to be combined with rotation.

Intracranial Injuries. Only in comparatively a limited number of instances are intracranial lesions the secondary result of the cranial bone injuries just discussed. In by far the larger number such lesions consist in lacerations of the dura mater, especially of the tentorium, without concomitant bone traumatization. Indeed, in very many cases of this sort no instruments had been used. The meninges tear when suddenly or excessively stretched either by quick and exaggerated overlapping of the parietal bones in the sagittal suture, or by strong compression of the head, mainly along its longer antero-posterior diameters. The shortening of cephalic diameters by such pressure in one direction causes with the changed configuration of the head a compensatory lengthening of the diameters which run in a right angle to the direction of the pressure. Most commonly the falx thus is pulled upwards and the weaker tentorial blades more or less severely damaged. Injuries of the meninges cause hemorrhage from the torn veins or sinuses. The amount of the extravasated blood determines

the outcome. Large hemorrhages result in immediate death. Smaller extravasations produce symptoms characterized by spastic or paralytic conditions, which will become severer or terminate fatally if the hemorrhage continues. They become less evident with the gradual resorption of the clot. Minute petechial hemorrhages, presumably very common, seem often to fail to lead to any noticeable symptoms. Whether such slighter hemorrhages, seemingly symptomless, may be responsible for physical and mental anomalies manifesting themselves only later in life, remains an open question.

This information concerning the etiology of intracranial birth traumas will render plausible the following prophylactic rules:

Never force an un moulded head quickly through the pelvis neither with a large dose of pituitrin nor with a rash forceps extraction. Remember the special vulnerability of the immature child for whom quick compression of the head even only by a not fully dilated cervix or a rigid perineum might prove disastrous. There is every reason to believe that the high immediate mortality of premature infants is more likely due to the traumatization incident to labor, especially to an artificial labor, than to prematurity or congenital debility—the customary diagnosis in statistics or on the burial certificate.

Laceration of the tentorium are undeniably caused by undue compression of the head in a sagittal direction, when in the effort of protecting the perineum strong pressure is exerted over it against the fetal forehead while simultaneously its occiput is forced against the symphysis. Particularly dangerous in this respect seems an asymmetric pressure exerted more vigorously over the one than the other frontal bone.

An episiotomy thus proves a good protective measure against intracranial injury when dealing with a rigid perineum.

In a similar manner the tentorium might be torn when in the extraction of the aftercoming head in a breech labor the occiput is too forcibly pulled against the symphysis. It is my opinion that haste in manipulating the aftercoming head is really more dangerous to the child than the feared asphyxiation which the haste is supposed to prevent.

Since forceps extractions always imply a definite risk to the baby's skull and its contents, the

use of the instrument should be strictly limited to urgent indications. In determining the justification for interference it will be well to keep the fact in mind, that contrary to the assertion, chiefly, of neurologists, the long continued compression of the head is less dangerous to the meninges and brain than its sudden and excessive compression. This certainly offers one satisfactory explanation for the notoriously high immediate mortality among children extracted by means of high forceps. How far this danger to the child, inherent to every forceps extraction, can be used as a valid argument against twilight sleep I shall leave to your judgment. As a matter of fact twilight labors are terminated with forceps in about 70 to 80 per cent. of the cases. Many of the babies are more or less asphyxiated. It is claimed by reliable observers that the engorged intracranial veins and sinuses of an asphyxiated child will prove less resistant to compression or stretching.

Ocular Injuries. Disregarding in this connection the retinal hemorrhages which presumably represent the combined result of abnormal fragility of the vessel walls, increased intravascular pressure and often a decreased coagulability of the fetal blood, all the serious eye injuries are the products of direct traumatization.

The bulbous is pressed out of its socket, completely gouged out, crushed or severely bruised either by a forceps, unfortunately so applied that the tip of one blade comes to lie directly over the eyeball, or by the finger of a careless attendant, more often a midwife, who mistakes the eye socket for a rigid cervix in need of forcible dilation. It seems unnecessary to explain how such injuries can be successfully avoided.

Mouth Injuries. If in a breech labor in the management of the aftercoming head the one or two fingers, placed into the baby's mouth, are not employed, as they should be, simply to maintain flexion, but are made use of to forcibly rotate or extract the head, a fracture of the jaw is likely to be the result of the maneuver.

Most of the other types of mouth injuries are due to a faulty technic during resuscitation of the asphyxiated child. For the aspiration of mucus from the pharynx solely a soft rubber catheter should be employed and never a stiff tube made of hard rubber or metal. The mouth of the newborn must be cleaned with moist cotton

or soft gauze. To what extent palate and tongue can be traumatized by rough dry gauze you can easily prove to yourselves by examining the mouth of every infant which seems to have difficulty with sucking or swallowing.

Injuries of the Vertebral Column and Spinal Cord. Even the flexible spine of the infant, more often than generally suspected, is seriously injured in birth. Invariably only after forcible deliveries, forceps operations and more often after version followed by immediate extraction, an autopsy which includes the careful examination of the entire spinal column, may reveal an unsuspected vertebral fracture, most commonly located in the cervical section. In other cases, not necessarily coming to autopsy, the injury consists in a luxation of one vertebra. The permanent or only temporary dislocation of a vertebra during obstetric manipulations will cause a traumatization of the cord, greatly varying in its consequences. Also in this connection the question has been raised whether conditions like the so-called "congenital scoliosis" or some obscure types of seemingly congenital forms of palsy do not actually represent parturitional column injuries, overlooked by the attending physician immediately after birth.

Practically all these spinal injuries seem to result from strong traction which either is made not exactly along the axis of the spine but in a lateral direction, or from strong traction with simultaneous torsion in the effort to effect a rotation of the trunk.

Considering these mechanical factors responsible for such injuries it becomes necessary, both in forceps and breech extractions, to observe carefully that the direction of the traction always coincides with the long axis of the fetus. In the moment when in the management of a breech presentation the one shoulder must be rotated backwards by torsion of the trunk, excessive stretching of the vertebral column with coincident twisting proves dangerous. In the maneuver of freeing the posterior arm the infant's trunk must not be bent too brusquely sideways while its legs are lifted high above the maternal symphysis.

In the delivery of the aftercoming head the dangerous combination of traction with bending the spine backwards or pulling it laterally must be shunned. The Veit-Smellie procedure might be tried carefully, but if an assistant is available

it always will be preferable to obviate all strong traction by gentle pressure against the head from above. An objectionable degree of hyperextension of the cervical spine is entailed in the effort to protect the perineum by bending the infant's trunk far back over the mother's abdomen. One should never feel any hesitancy in facilitating the delivery of the head in a primipara by an episiotomy, if vagina and vulva as a preliminary step have not been dilated in the manner suggested by Potter.

Injuries resulting from forced flexion and mainly from hyperextension of the spine by too brusque an execution of Schultze's swingings certainly are preventable.

Injuries of the Sterno-Mastoid Muscle. The condition known as torticollis or wryneck is now generally accepted as a truly congenital defect and is not any longer considered, as used to be the belief, the final outcome of the laceration of a normal sterno-mastoid muscle at birth. Only the abnormally short and weak muscle is actually torn during labor, and traumatization of such a defective muscle in delivery is practically unavoidable.

Injuries of the Clavicle. I already had occasion to mention that this injury occurs more frequently than is commonly assumed, and I may add at this point, that, contrary to prevailing belief, the accident happens more often in vertex than in breech labors. The various conditions under which the clavicle might be fractured may be briefly described as follows: If during extraction of the aftercoming head in the Veit-Smellie method index or middle finger, forked around the neck, presses too forcibly against one clavicle it may be broken at the point of the impact, exactly like the clavicle of an adult. Again, if in a breech labor strong pressure is required to bring down an arm, this force may be transmitted along the shaft of the humerus to the clavicle and cause its fracture. The mechanism involved in this type of injury is comparable with that underlying the calvicular fracture of an adult sustained in a fall on the extended arm. It is assumed, but not definitely proved, that a clavicle may be fractured, both in vertex and breech labors, by the excessive compression of the shoulder girdle in its passage through a narrowed pelvic outlet. This type would resemble clavicular fracture in an adult produced by a fall against the shoulder.

The general observation, however, that most often the break occurs in the clavicle which in labor passes anteriorly, suggests strongly that the deciding factor in the causation of the fracture is the pressure of the anterior shoulder against the symphysis. This satisfactorily explains the fairly common observation of clavicular fractures or merely of subperiosteal infractions after perfectly normal and spontaneous labors.

The fact has been firmly established that in infants, born in head presentations, the incidence of clavicular injuries can be materially reduced by avoiding all traction either directly on the head or by means of a finger hooked into the axilla, both representing very common manipulations during delivery. In these procedures, as well as by pressure against the perineum, the anterior clavicle is more or less forcibly squeezed against the sharp edge of the symphysis.

In a normal vertex labor there really does not exist any necessity for hurrying the delivery of the shoulders by traction. After the head is born, the baby's mouth can be carefully wiped out and protected against further aspiration of fluid, mucus or blood by a piece of gauze placed over it. When difficulty with the shoulders is experienced, one should wait for the support of the next uterine contraction reinforced by a strong bearing down effort of the mother. Here again a deep twilight sleep may have its disadvantages.

In the management of a breech labor an injury to the clavicle can not always be avoided even by the most experienced. But no traction must be made on the trunk while an arm caught in the nape of the neck is being freed. Gentle pressure from above will obviate very strong pulling on the clavicles in the Veit-Smellie procedure.

Brachial Birth Palsy. With opinions still varying widely as to the exact mechanism by which the brachial plexus is damaged in birth, I shall refrain from enumerating the various factors held responsible for the injury. Theoretical considerations and experience, however, permit the formulation of definite protective measures against traumatization of the plexus.

As far as the origin of these lesions either by overstretching of the nerve roots or by their subsequent involvement through primary injuries of the shoulder joint is concerned, the general principle can be laid down that wherever there is difficulty with the shoulders, either in vertex or

in breech presentations, forcible traction must be made, as far as possible, only along the long axis of the child and never against, or on, a head held in lateral flexion.

All direct compression of the brachial plexus should be avoided. This is most likely to happen in the Mauriceau-Smellie method of extraction of the aftercoming head. Most teachers of obstetrics lay stress on the importance of placing the tips of the two fingers, forked over the shoulders, not on the sides of the neck but on the sternum of the infant. If one's fingers are not very long, the end phalanx can be prevented from pressing against Erb's point and from digging during a strong traction into the neck, by deliberately keeping the fingers in full extension; their more natural attitude during a pull on the shoulders would be the dangerous flexion.

Injuries of the Upper Extremities. Both, detachment of the upper epiphysis and fracture of the shaft of the humerus, are caused either by severe direct pressure or by forceful traction on the arm with simultaneous rotation. Therefore, very much like the anterior clavicle, also the anterior arm may be fractured in a vertex presentation when too forcibly pushed against the symphysis in the attempt to protect the perineum either by pressing against the posterior shoulder through the distended perineum, by raising the anterior shoulder with a finger hooked into the axilla, or by elevating the already born head.

More often, however, the humerus is injured in the management of a breech presentation. Under these conditions the arm is liable to be fractured if it is brought down by direct pressure against it instead of resorting to the following proper procedure: The body of the infant is pushed back a little way and then the arm, lying back in the nape of the neck, carefully wiped downward over the face by passing the introduced hand gently from shoulder, over elbow down to the baby's wrist. The obstetrician will be justified in deliberately breaking humerus or clavicle in this procedure if in his best judgment a quick delivery is required in the interest of the baby. However, as already mentioned, undue haste on the part of the accoucheur in the management of a breech labor is likely to prove more serious to the infant than the asphyxiation which this haste is trying to prevent.

Internal Injuries of Thorax and Abdomen.

Characteristic for all injuries of this group is the fact that, with but rarer exceptions, they are inflicted by rough or unskilled manipulations during resuscitation of the asphyxiated child.

Forced inflation of air, especially by means of pumps, always is fraught with danger to the integrity of the lungs. The firm grip on the shoulders of the child, required for swinging, may not only cause traumatization of various muscles, but undeniably occasionally is directly responsible for forcing the one end of a broken clavicle through the wall of the thorax. A child whose clavicle is broken should never be swung but you will remember my positive assertion that in the majority of instances this injury actually is overlooked.

In the continued controversy over the real or assumed dangers of Schultze's swingings, peritoneal hemorrhages, originating from a traumatized liver, spleen, pancreas or adrenals and often found in autopsies, always have kept a prominent place. It is impossible to determine at post mortem whether they are the result of the swinging or, as claimed by others, in reality represent parturitional traumas which immediately after birth cause symptoms that erroneously might easily be interpreted as asphyxiation. It would seem perfectly obvious that swinging or even the mere holding of the seemingly asphyxiated baby with his head hanging down will necessarily aggravate an intra-abdominal and still more an intracranial hemorrhage. Merely theoretical considerations furthermore can leave no doubt that the forced flexion and extension produced in swinging must imply a definite trauma to the abdominal viscera. The observation of a fatal rupture of the liver after swinging of a baby delivered by means of a simple Cesarean section might well be accepted as an experimental proof. Therefore, I feel fully justified in warning most earnestly against the vigorous swinging of any seemingly asphyxiated new-born and even against the suspension of the baby by his feet, which seems to have become almost the routine when the baby would seem not to breathe properly immediately after its expulsion.

Injuries of the Lower Extremities. In this brief review only the fractures of the femur need be considered. Version and extraction offer most favorable opportunities for the production of this injury. During version: when the accoucheur in-

correctly grasps the thigh instead of the foot; when the one leg is pulled down over the other lying crossways; or when a version is made too long after the escape of the amniotic fluid. In a breech labor: when a leg is brought down though the breech already is fixed in the pelvic inlet, or when the infant during the delivery of the shoulders is held, improperly, with one hand on a thigh, instead of both hands over the pelvis.

Also in this connection it proves interesting to point out the specific danger to all long bones and the spine, of a combination of traction with simultaneous rotation. This, e. g. is exactly the motion by which in a Cesarean section the baby, grasped at one leg, by a twisting motion is delivered through the incision. If this incision either in uterus or abdominal wall is too short, just this rotation under strong traction will occasionally cause a fracture of the thigh.

Another not uncommon cause for a fracture at the upper femoral end is the digital extraction of an impacted breech. This particular danger can be minimized if only one finger, and never two, is hooked into the groin, and if during extraction care is taken to direct all pressure against the infant's pelvis.

CONCLUSIONS

It may seem to you, listening to this paper, that I have thoroughly exhausted the list of injuries which a child may sustain in the course of delivery or during resuscitation. As a matter of fact I have limited discussion only to those lesions which occur commonly enough to be of interest to all practitioners of obstetrics, and only to those injuries the origin of which we understand clearly enough to be able to speak concerning measures for their successful prevention.

I have laid some stress on the fact that the child can be more or less severely traumatized also in a normal labor, in a spontaneous labor, if we grant that the term "spontaneous" by common consent includes also deliveries in which the expulsion of the fetus is actually hastened by the administration of pituitrin. In by far the larger number, however, serious traumas are observed after labors terminated by operations or other artificial means. In this larger group, lack of skill admittedly is an etiological factor of considerable importance. It may be lack of diagnostic ability, a lack of judgment, or mere awkwardness of technic, not rarely super-induced by

bewilderment or by undue haste. I wish to put the accent on "haste." Routine version followed by immediate extraction to eliminate the second stage of labor, forceps extractions even on high heads to shorten the entire labor, forceps extractions in the second stage of twilight labors to obviate the delay inevitable through elimination of important accessory expulsive force, large doses of pituitrin often given in short intervals, all these procedures find their enthusiastic advocates in modern obstetric literature. Do they, in their last analysis, express anything else but haste of some sort? I do not just mean haste on the part of the obstetrician to get home, but they certainly signify the attempt to terminate labor as quickly as possible—"to shorten the unbearable suffering of the mother" as the legend usually runs. But is this haste in the interest of the mother entirely free of harm to the child? I answer this question with an emphatic "no." A definite danger to the fetus is inherent to all obstetric operations and manipulations, even if performed by experts. This knowledge is one of the reasons why they should be strictly limited to conditions in which interference offers hope to save the endangered life of the child, or where speedier termination of labor in the interest of the mother is required so urgently that the concomitant risk to the baby must be disregarded. This risk to the infant, incident to labor and to obstetric operations, might be lessened by strict observance of some of the suggestions I have taken the liberty of making to you in this paper.

Metropolitan Building.

ACUTE LESIONS OF THE UPPER ABDOMEN

FREDERICK G. DYAS, M.D.,
CHICAGO.

Acute lesions of the upper abdomen are frequently more dangerous than are those of the lower portion. It has long been known that the upright position, through which gravity attracts any foreign substance toward the pelvis, had conferred a considerable degree of natural immunity upon the lower peritoneum. This is especially true of women. It has been demonstrated in the laboratory by the injection of pigment particles into the peritoneal cavity. Absorption is very slow from the lower peritoneum and rapid from the diaphragmatic portion. Furthermore, clin-

ical experience has shown that the hazard of laparotomy increases in direct proportion to the proximity of the incision to the diaphragm. A contributing cause to the increased danger of exploration of the upper abdomen is the pulmonary stasis consequent upon diminished movement of the diaphragm. Furthermore, it has been shown experimentally that the contents of the occluded duodenum or jejunum are highly toxic as compared to the contents of the bowel at a lower level. The explanation of this is not altogether clear but it is possible that the concentrated secretions of the pancreas, liver and stomach entering the bowel at a high level before dilution with the normal bowel contents can occur, may explain the severity of all symptoms following high intestinal obstruction or perforation.

It may be said that the secretions and contents of the viscera of the upper abdomen are more irritating and more toxic than are those of the viscera of the lower abdomen and as a corollary, contamination of the peritoneum by the first mentioned produces more violent symptoms. As proof of the above statement one might cite the comparative relief of pain following the rupture of a suppurative appendix and the agonizing pain and shock following the rupture of a gastric ulcer or the release of pancreatic secretion, in acute pancreatitis, into the peritoneal cavity. The appendicitis patient suffers little or no pain for the first few hours following the contamination of the peritoneum with pus, while the gastric juice or pancreatic secretion, because of its irritative and digestive action, causes immediate and constant pain.

The fat necrosis seen on opening the abdomen in cases of acute hemorrhagic pancreatitis is mute evidence of the destructive and excoriating influence of the pancreatic secretion upon the sensitive peritoneum. The corrosive effect of the gastric juice upon the endothelium of the peritoneum produces an agonizing pain, but it is probably less severe than the pain caused by the pancreatic juice. The classic hunger pain of gastric or duodenal ulcer is caused by the acid gastric juice flowing over the denuded surface of the ulcer. It is quite probable that hyperchlorhydria in the absence of ulcer may be painful because of the irritation of the mucosa by the concentrated hydrochloric acid. Rupture of the gall bladder is a rare lesion. The release of aseptic bile produces a chemical peritonitis with the

formation of dense fibrous adhesions, but the bile is only mildly irritative as compared to pancreatic secretion or to gastric juice.

Crushing injuries to the abdomen are likely to cause graver lesions above than below. The upper abdomen is only partly protected by the ribs which bend or are easily fractured, while the bones of the true and false pelvis protect the lower viscera to a much greater extent.

Rupture of the liver is becoming increasingly common because of the growing motor traffic. The rupture commonly occurs on the convex surface of the right lobe. The patient presents boardlike abdominal rigidity with signs of shock and hemorrhage. Delayed signs of hemorrhage may also occur, as the following case will illustrate.

A man, aged 18 years, entered the hospital complaining of pain of a sharp nature and stated this was present when he tried to breathe and that he could not take a deep breath because of it. This pain had been present since the day before when he had been knocked from his bicycle by a light motor truck which had then backed across his right arm and chest. He had been helped to his home and a few hours later brought to the hospital, complaining of pain on respiration along with sharp pains that "shoot from his abdomen to his right arm." He also complained of pain in various parts of his body and seemed to be semi-hysterical.

Physical examination revealed a young man who was breathing rapidly and shallowly and complaining of pain when he tried to breathe deeply. The eyes, ears, nose and throat were negative. The lips were very pale and the patient appeared anemic. There was marked tenderness on pressure over the eighth rib, in the posterior-axillary line. The heart and lungs were negative. There were a few bruises on the right chest. The abdomen was rigid and pressure caused pain at times and again it did not. The liver dullness was not diminished; there was no great dullness in the flanks. There was a few bruises on the right arm but no signs of a fracture. The reflexes were normal. The diagnosis of a fractured rib and shock to some degree was made but a few days later as there was no palpable evidence of fractured ribs the patient was discharged. Tender spots over the lower ribs posteriorly, were still present.

Four days later the patient was readmitted to the hospital complaining of copious passages of dark blood in his stools and difficulty in urination. Respiration was painful. The patient appeared anemic and in shock. The abdomen was rigid and tender over the entire area on deep palpation. This condition had started the previous night when he had had a bowel movement and collapsed. The mother stated that the stool contained dark clotted blood. The enema tube contained thick clots of

blood and the fluid returned was bloody with many clots. The patient was catheterized and the urine was amber in color; specific gravity 1018; no sugar; albumin +; no R. B. C.

However, most cases present the picture of severe acute hemorrhage and the abdomen should be opened without delay.

The following case of upper abdominal injury is unusual. The patient was held up and kicked in the abdomen. He was able to reach his home, and appeared fairly comfortable when seen by the family physician. Examination of the urine, however, revealed sugar which had never been present heretofore. During the night following his injury, hourly white blood counts revealed an increasing leucocytosis and he was brought to the hospital for exploratory laparotomy. At that time, which was ten hours after his injury, there was little to be found on examination of the abdomen, so little in fact that the surgeon advised deferring the operation. He was told, however, by the family physician that the case was brought for operation and not for diagnosis. He consented to open the abdomen and found eighteen inches of the ileum had been detached from the mesentery as a result of the kick in the abdomen. This trauma had also involved the head of the pancreas resulting in the presence of sugar in the urine. The gangrenous arc of bowel was resected and end-to-end anastomosis done, the sugar disappeared from the urine resulting in the complete recovery.

Injuries to the pancreas frequently result in the formation of a pseudo-pancreatic cyst.

A case was brought into the County Hospital with the history of trauma in the epigastrium from a kick within a week previous. Examination revealed a transverse sausage-shaped tumor lying across the upper portion of the abdomen. A diagnosis of pseudo-pancreatic cyst was made. Under ether anesthesia an incision was made and the cyst exposed by tearing through the gastro-colic omentum. The cyst was punctured permitting the escape of a large amount of seropurulent material.

A rubber drainage tube was sutured in place and drainage kept up for nine weeks finally resulting in complete healing.

Occasionally trauma to the upper abdomen results in the forceful rupture of a gastro or duodenal ulcer. The symptoms of rupture of either of these ulcers is the same whether it be spontaneous or due to violence. The patient complains of extreme pain caused by the escape of the irritating gastric juice.

This is followed by nausea and vomiting, the vomitus occasionally containing flakes of blood and coincident with this is the appearance of shock. The abdomen is boardlike in its rigidity with extreme sensitiveness on pressure, more

marked in the upper portion. Later chemical or microscopic blood may be found in the blood passages. Pain in the upper abdomen coming on after ingestion of a large meal or following a drinking bout is to be regarded with the utmost suspicion. The writer was recently called in consultation to see a man twenty-five years old who had been taken sick at a banquet the night before. In addition to eating a large amount of food, the guests were provided with an unusual supply of the modern home-made alcoholic beverage. The patient described his attack, which came on while he was at the table as the same sensation as having a knife thrust into the abdomen. He fell to the floor with the pain and immediately went into shock. When seen ten hours later he had marked abdominal rigidity and tenderness; the leucocyte count was 9,000, with no elevation of temperature. A diagnosis of probable ruptured gastric or duodenal rupture was made and operation advised. The laparotomy revealed a perforation of the stomach over the lesser curvature. This was excised and covered over with a double row of Lembert sutures with a patch of omentum as a double security. The patient made a good recovery.

The bizarre effects produced by the modern home-made alcoholic beverage keep the medical attendant continually on his guard. The classic picture of delirium tremens is now rarely seen in the wards of a large hospital where it was once so common. In its place may be observed various forms of psychoses together with peripheral nerve involvement. When one considers that in many instances these addicts have been drinking metallic poisons in the belief that the beverage was alcohol, it is not to be wondered at that the diagnostician is frequently confronted with a symptom complex which is unusual, to say the very least. A case was recently admitted to the hospital complaining of attacks of acute abdominal pain, nausea and vomiting and boardlike abdomen with sensitiveness on pressure over the epigastrium. There were also pains in the legs and an increasing difficulty in locomotion. Examination revealed a lead line upon the gums and his blood showed an eosinophilia but the patient denied the possibility of any lead poisoning and his work was clerical. A specimen of the beverage brewed in his home on analysis showed a large amount of lead acetate. This was caused

by the distillate being conducted through a lead pipe leading from the still.

Another case was brought in with the diagnosis of duodenal ulcer. There was no hunger pain and eating aggravated his symptoms. The barium meal and x-ray of the stomach were negative and no blood was found in the stools. The patient complained of severe epigastric pain and there was marked tenderness and rigidity upon palpation. Numbness of the legs and arms was also complained of and the patient was unable to walk or to stand. The pupils were equal and normal but the knee jerks were absent. Pain sensation was greatly delayed and in some areas entirely absent over both arms and legs. Upon questioning the patient admitted constant drinking of homebrew. A diagnosis of peripheral neuritis was made and the patient was put upon an ulcer diet and eliminative treatment. His stomach symptoms have disappeared and he is now able to walk unassisted.

Injury to the spleen is rare except in cases where the organ is enlarged because of malarial or other infection. Severe hemorrhage is the picture which follows rupture and requires immediate splenectomy. The peritoneum is not involved in rupture of the spleen.

Conclusion.

In all cases of acute lesions of the upper abdomen, whether traumatic or spontaneous, in which the patient is a consumer of the modern homebrew, a careful examination should be made to elicit the signs of acute gastritis and peripheral neuritis.

25 East Washington Street.

EUROPE TODAY AND POSTGRADUATE MEDICINE*

JAMES E. LEBENSOHN, M. S., M. D.,
CHICAGO

To the doctor who plans a European trip a good knowledge of French and German is invaluable, yet even a smattering of these languages goes far with the average agile American. Among books that can well be read before travel are: Abraham Flexner, "Medical Education in Europe," Legge, "Public Health in European Capitals," Richard Harding Davis, "About Paris," Lucas, "A Wanderer in London," etc.

Several organizations are working to promote

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student interest abroad. The Carnegie Foundation, 576 Fifth Avenue, New York City, has published a valuable book, "Science and Learning in France." The French Universities have a representative at 1834 Broadway (Columbus Circle), New York City, M. Jules Champenois. This gentleman very courteously supplies the inquirer with all needed information and even provides letters of introduction. He is particularly interested in medical men and those contemplating a stay in France should write for the prospectus of medical courses in Paris and the provincial universities. About England and other countries, literature is obtainable from the Institute of International Education, 419 W. 117th St., New York City.

Letters of introduction have value everywhere, particularly so in England. It is well too to learn who are the European corresponding members to our leading medical journals. You may freely introduce yourself to these and be assured of sympathetic and hearty welcome.

Travel suggestions: Carry as little American baggage as possible. A three quarter size wardrobe trunk should be sufficient. It is best to make your purchases just before leaving Europe and then buy a cheap trunk to contain them. Among articles best brought along are: English Baedekers, shoes, fountain pens, scrapbooks, American flags, student eyeshades, tuxedo.

In London a Graduate Fellowship in Medicine has recently been established which publishes regularly a bulletin of clinics. It also maintains an office and secretary, and does its best to solve the problems of the visiting doctor. The leading medical organizations are the Royal College of Physicians, Pall Mall East; and the Royal College of Surgeons, Lincoln Inn Fields. To those interested in Eye, a high grade postgraduate course of five months duration is given twice yearly at the Royal Ophthalmic Hospital, City Road 1 (beginning October and March).

In Paris the American University Union, 1 rue Fleurus, will help the doctor in becoming located and oriented. The information bureau in the Faculte de Medecine, 12 rue de l'Ecole de Medecine, is in charge of a charming demoiselle who speaks English perfectly (Hrs. 9-11 A. M.—2-5 P. M.). Detailed information is given of courses, clinics and medical meetings; and best of all one receives a special metro map of the hospitals in Paris that is wonderfully

convenient. The American Library in Paris, 10 rue de l'Elysee, has books in English and French in every department including medicine (Hrs. 9 A. M. to 10 P. M.). Other addresses of interest are: General Association of Students, 13 rue de Bucherie; Corporative Association of Students in Medicine, 8 rue Dante; Franco-American Social Club, 5 rue Clavel; Comite Franco-Amerique, 82 Champs Elysee; American Hospital, Neuilly; American Red Cross, 44 rue de Chevreuse. The moulages of skin conditions at the Hospital St. Louis will be of interest to the dermatologist. Every year finds a number of international congresses in Paris. The best time to visit Paris is probably from May 1 to July 14. Bastille Day ends all work for the summer. A recent article of mine¹ gives considerable detail that will be of decided value to anyone contemplating a study in the French capital.

Vienna is reached in 36 hours from Paris via Germany or Switzerland. In Austria, above all, be careful about the exchange. My advice is to bring all the money you expect to need in Austria with you, and that in ten dollar money orders of the American Bankers or the American Express Company. Change your money only in Austria and then only as much as you need. The principal hotels—Grand, Imperial, Bristol—are crowded, and accommodation must be telegraphed for in advance. Among pensions near the Allgemeines Krankenhaus can be recommended: Pension Atlanta, IX Wahringerstrasse 33; Pension Columbia, VIII Kochgasse 9. The medical work in Vienna is centered in and about the Allgemeines Krankenhaus, which is situated along Spitalstrasse, and Alserstrasse, with newer extensions in Lazarettgasse. Nearby is the Allgemeine Poliklinik in Mariannengasse. To get started in work it is first necessary to present your card to the Professor in the department in which you are interested. Much of the postgraduate instruction for Americans is given in English. Last summer about sixty American doctors were in Vienna, the Vienna A. M. A. was organized with weekly meetings, and many of the old lecture courses were re-established under Alexander, Hirsh, Ruttin, Lindner, Bachstetz, et al. Private instruction—clinical and cadaver—was easily arranged, including bronchoscopy on

1. *Lebensohn, James E.: The American Student in Paris. Educational Review, April, 1923.

the living. No one was however given any major operative work.

Instruction will be the highest item of expenditure. Books and instruments are at very low prices. Mail your books home—the postage is so cheap. In buying things have your shirts, shoes and underwear made to order—you will not like the Viennese mode. The cost for room, board and entertainment is ridiculous—in American money.

The following national and international congresses have recently met or are scheduled for the near future:

Congress for Internal Medicine, Vienna, April 9.

The Royal Institute of Public Health, Scarborough, England, May 16.

The German Dermatological Society, Munich, May 26.

International Medico-Military Congress, Rome, May 28.

The Pasteur centennial is fittingly celebrated at Strassbourg with the meetings of the following congresses:

Hygiene and Bacteriology, June 1.

Tuberculosis, June 2.

Ophthalmology, June 11.

Cancer, July 23.

Dermatology, July 23.

Leprosy, July 26.

Congress for Speech Disturbances, Vienna (Secretary, Dr. Froeschels, Ferstelgasse).

French Ophthalmic Congress, Strasbourg, June 11.

(Next international congress of Ophthalmology, London, July 21, 1925.)

International Surgical Association, London, July 17. (Secretary, Dr. L. Moyer, 72 rue de la Loi, Brussels.)

International Congress of Comparative Pathology, Rome, October 7.

For medical men who hesitate to undertake study in Europe because of unfamiliarity with conditions there, or a limited knowledge of foreign languages various agencies have recently arranged conducted tours. Dr. Geo. Mackenzie (1831 Chestnut St., Philadelphia) last summer escorted those interested in otolaryngological study in Vienna. The trip took nine (9) weeks and is to be repeated this year, leaving New York about the middle of June. The total cost,

everything included, will be \$750. A company by name of "Academic Tours," 152 W. 42nd St., New York, have arranged for 10-12 weeks postgraduate courses in the various branches of Medicine at the Universities of Goettingen, Leipzig, and Frankfort a Main. Upon the conclusion of these courses duly authorized diplomas will be issued by the Universities. 3159 W. Roosevelt Road.

GASTRIC SURGERY*

W. J. HURLEY, M. D.,

CHICAGO

In considering surgery of the stomach the primary object is the restoration of that organ to as nearly as possible its normal anatomical and physiological condition, exclusive of the existing pathology.

Most of the abdominal viscera are closely related to one another by a neuromuscular mechanism and one may consider the stomach, duodenum, biliary tract, pancreas and appendix as one essential neuromuscular physiologic system.

It is not my purpose in this paper to review the various operative procedures that have been devised for the cure of stomach lesions because many of them are now obsolete, while others having served their original purpose are now superseded by methods that are more practical.

Gastric surgery has made great strides in the quarter of a century that has elapsed since the invention of the Murphy button. Though the button is little used at the present time it served as the nucleus for the more modern methods of gastroenterostomy.

The stomach has been looked upon by many as a cure-all for all human ills. It has been subjected to numerous attacks where proper indications were lacking. Thus criticism came.

The majority of operative procedures on the stomach are performed for some ulcerated condition. The value of any gastric operation should be judged first by its simplicity, second, by its applicability, third by immediate results, and fourth, by ultimate results. There is no one operation that should be employed for gastric surgery. The operation should be made to fit the pathology and not the pathology the operation. The type of operation depends upon

*Read before the Englewood Branch of the Chicago Medical Society, November, 1922.

the site of the pathology and the amount of accompanying induration.

After a careful review of the medical literature and of the cases operated upon by myself, I am led to believe that where the proper indications



Fig. 1. Drawing showing how Roosevelt forceps is applied to stomach. The lower edge of the mesocolon is carefully approximated to the posterior wall of the stomach by five interrupted sutures. The first and last sutures are placed at each extreme angle of the incision.

are present and the correct surgical procedure instituted, not only will gastric surgery equal but even surpass any form of major surgery of today.

Moynihan, in the *British Medical Journal*, summing up the failures in gastric surgery, attributes the vast majority to three causes: First, absence of an intrinsic lesion of the stomach or duodenum; second, an incomplete operation which leaves a diseased organ, such as the appendix or gall-bladder, which acts as a focus for recurrent infection; third, technical failures.

Gastro-enterostomy where a definite indication justifies its performance not only prolongs the life of the individual but improves his health and happiness. Dr. A. J. Ochsner has declared that posterior gastro-enterostomy is the operation which impressed him as being more nearly correct from a mechanical standpoint.

Gastro-enterostomy gives a higher percentage of permanent relief than any surgical procedure which changes physiologic conditions to permit nature to effect a cure, but does not directly attack the pathologic lesion. It is surprising to note the varied views pertaining to this operation. Recent literature on the stomach show

many writers in favor of the operation while others admit it to be a failure. Some authorities consider the Moynihan-Mayo method a standard, while others favor the Mayo three-layer posterior row of sutures. The method which I employ and which will be described in detail in this paper is similar to that advocated by Mayo but has the advantage of added simplicity, in that it requires a minimum amount of anesthesia, less manipulation of the viscus and insures perfect hemostasis.

Using this method by mortality in cases of peptic ulcer has been 1 per cent during a period of one year. Ninety-five per cent showed no return of the original symptoms, while slight improvement was noted in 4 per cent. Two patients returned for a second operation, at which

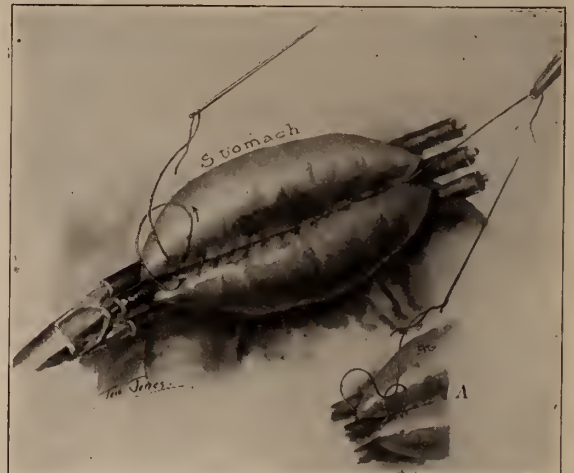


Fig. 2. The jejunum is held with bowel clamps in the same manner as the stomach. A moist sponge is placed between stomach and jejunum before the Roosevelt forceps is applied to the latter. The suture is inserted through the serous and muscular layers on the left sides of stomach and jejunum, leaving free edge of suture about three inches in length. A small clamp is applied to the end of the suture and dropped between outer blades of Roosevelt forceps.

time the former gastro-enterostomy was not disturbed.

In a series of 1,280 patients with gastric ulcer operated on at the Mayo Clinic, 195 deaths occurred following satisfactory recovery from the operation. There were 75 deaths from gastric cancer, comprising about 40 per cent of the total number of deaths.

At the Crile Clinic, Cleveland, in a series of 761 operations on the stomach and duodenum, the mortality in simple gastro-enterostomy was under 1 per cent, while in 108 cases in which the combined operation of resection and gastro-

enterostomy was performed the mortality varied from 2.8 to 10 per cent.

Scudder reports a series of 310 cases of chronic ulcer of the stomach and duodenum operated on at the Massachusetts General Hospital with a mortality of 6.7 per cent.

Finsterre, of Berlin, states that in his latest series of 365 resections for gastric ulcer, the mortality was 3 per cent.

Habere, of Leipzig, reports 156 cases, consist-



Fig. 3. The opening in the jejunum is completed, a small forceps being placed on its lower border. Second row of suture extends through all the layers of stomach and jejunum.

ing of 810 resections, 71 pyloroplasties and 215 gastro-enterostomies. The mortality in the resection cases has been scarcely over 2 per cent.

Deaver states that gastro-enterostomy has reduced the mortality in gastric surgery very materially and that good results are obtained in 95 per cent of the cases.

Bevan states that in ordinary ulcers of the duodenum gastro-enterostomy offers a cure in about 90 per cent of the cases and in ordinary ulcers of the stomach about 50 per cent prospect of cure. He believes that in the large callous ulcers the prognosis from a gastro-enterostomy is not favorable and that the second Billroth resection offers the patient the best prospect of a cure.

In my own series of 30 gastrectomies followed later by posterior gastro-enterostomy for carcinoma of the stomach the mortality was 10 per cent, while in 200 cases of gastro-enterostomy performed for peptic ulcer the mortality as 1.5 per cent.

The technic employed in my method of gastro-enterostomy is briefly as follows:

An incision is made slightly to the left of the

median line, beginning about one-half inch below the ensiform cartilage and extending down to or below the umbilicus. Complete hemostasis is secured and the towels are properly adjusted at the edges of the incision. Careful exploration of the abdomen is then made, after which the transverse colon and stomach are brought into the incision. An opening is made through the transverse mesocolon, special attention being paid to hemostasis. The dependent posterior wall of the stomach is brought through the opening and the most dependent portion of the stomach grasped by two bowel forceps, one in the hands of the operator and the other held by an assistant. A Roosevelt forceps is applied to the stomach and the lower edge of the mesocolon carefully approximated to the posterior wall of the stomach by five interrupted sutures, the first and last sutures being placed at each extreme angle of the incision. (Fig. 1.) The jejunum is brought up, measuring carefully the position of the stomach so that no loop will re-

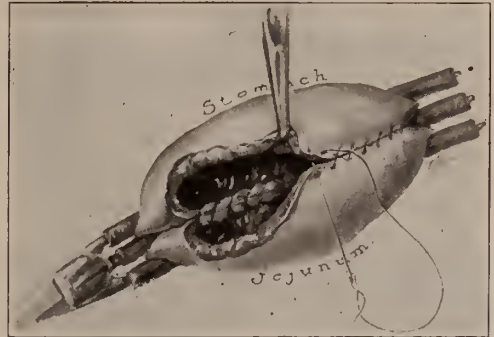


Fig. 4. The outer layer of stomach and jejunum are perfectly approximated without the removal of any of the mucosa, and shows the thumb forcep attached to the stomach wall as the suture is introduced through each respective layer.

main after completion of the operation. The jejunum is held with bowel clamps in the same manner as the stomach. A moist sponge is placed between the stomach and jejunum before the Roosevelt clamp is applied to the latter. The suture is then inserted through the serous and muscular layers of the stomach and jejunum on the left side, leaving the free edge of the suture about three inches in length. (Fig. 2.) A small clamp is applied to the end of suture which is dropped between the outer blades of the Roosevelt forceps. An incision is then made through the peritoneal coat of the stomach, the vessels being ligated proximal to the greater curvature.

A small forceps is placed on the upper border of stomach in order to keep the opening in view. The opening in the jejunum is completed, a small

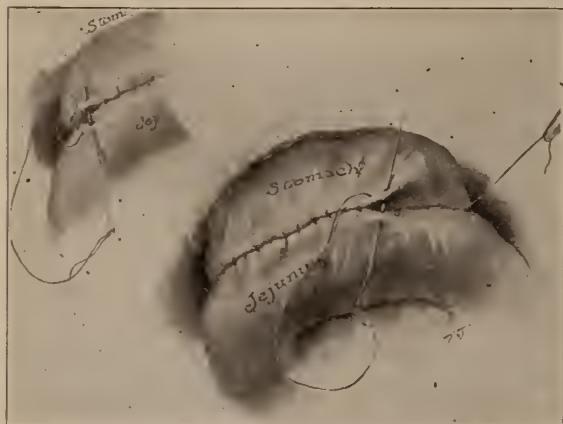


Fig. 5. The Roosevelt forceps is removed and the line of union brought into view by forceps on the projecting end of the suture. Continuous suture is inserted through serous and muscular layers until the beginning of the first row is reached.

forceps being placed on its lower border, and the second row of sutures extending through all layers of stomach and jejunum is then inserted. (Fig. 3.) This second row of sutures extends clear across about two sutures distal to the opening where an interlocking suture is inserted. The outer layer of stomach and jejunum are perfectly approximated without removal of any of



A. Shows the interlocking suture placed at the right edge of the suture line.

Fig. 6. The upper border of the mesocolon is attached beyond line of suture to jejunum by five interrupted sutures, the edges of the mesocolon inverted.

A. Shows the surgical knot used with the projecting end of the suture.

the mucosa. (Fig. 4.) An interlocking suture is placed at the right edge of the suture line. (Fig. 5A.) The Roosevelt forceps is removed and the line of union brought into view by forceps on the projecting end of the suture. A continuous suture is inserted through serous and muscular layers until the beginning of the first row is reached. (Fig. 5.) A surgical knot is used with the projecting end of the suture. (Fig. 6a.) The upper border of the mesocolon is attached beyond the line of suture to the jejunum by five interrupted sutures and the edges of the mesocolon inverted. (Fig. 6.) The stomach and transverse colon replaced into the abdomen and the peritoneum closed with continuous layers of catgut and the skin with silkworm-gut. No drain is inserted.

In my opinion this method offers the following advantages:

1. Minimization of time, anesthesia and manipulation of the viscera.
2. Most perfect apposition of each respective layer of stomach and jejunum.
3. Danger of postoperative adhesions is minimized.
4. Simplicity of technic.
5. Minimum amount of foreign material used in the operation.
6. Perfect hemostasis and drainage, and perhaps most important of all, usually a complete recovery for the patient.

6558 South Halsted Street.

ON MENSTRUAL BREAST CHANGES INDUCED BY THE CORPUS LUTEUM

The author's conclusions are that (1) the corpus luteum of menstruation, like that of pregnancy, produces a mammary enlargement which is physiological; (2) this enlargement is felt by many women as a sensation of fullness, and may be noted histologically as a proliferation hitherto regarded as characteristic of early pregnancy; (3) when conception does not take place this proliferation recedes, so that in the interval only the larger lacteal ducts can be found in the mammary glands; (4) in the behavior of the glandular elements it makes no difference whether the woman has borne children or whether she be a virgin; (5) on the other hand, every mammary proliferation requires a precedent corpus luteum: without a corpus luteum there is no menstrual cycle and no proliferation in the mammary gland. Thus, in amenorrhea produced by prolonged disease, such as tuberculosis, there is no glandular proliferation to be seen, but only the lacteal ducts.—A. Rosenberg (*Frankfurter Zeitschrift für Pathologie*, 1922, 27:466).

A CASE OF PURPURA FOLLOWING VACCINATION

EUGENE F. TRAUT, M.D.,

OAK PARK, ILL.

L. D., a teacher fifty years old, was vaccinated in the usual way April 14, 1922. The vaccinal virus was furnished by the Chicago Department of Health. He was the only one to develop vaccination complications, although several hundred others were vaccinated with the same preparation. A thorough examination on the day of vaccination showed a few apical teeth infections as the only pathology but his general appearance was that of a man who had worked long and hard without vacation. The area of scarification became itchy April 17 and commenced to swell. On the same day blood oozed from his gums. The following day there were several penny-sized blue spots on his tongue. Small red spots appeared on the vaccinated arm and then over the whole body. He had large purple spots on his trunk. Epistaxis started April 17 and continued four days. It was not profuse and did not alarm him. There were no joint pains nor abdominal symptoms. There was no gross blood in the urine or feces.

The patient walked to the office April 21. His general appearance was fair. A herpes vesicle on the lip was filled with blood. The ecchymoses into the tongue were about 1 cm. in diameter. There were small effusions of blood into the gums. No conjunctival or retinal hemorrhages were noted. There was a large healing ulcer on the seat of vaccination. It was surrounded by numerous small hemorrhages which became more scattered as the distance from the ulcer increased. The trunk and limbs were dotted by ecchymoses 1 cm. to 6 cm. in diameter. The legs and arms were liberally sprinkled with petechiae and the application of a ligature brought out fresh crops. A very slight contusion would produce an ecchymosis. Physical examination was otherwise essentially negative. The urine was normal except for an occasional erythrocyte in the centrifuged specimen.

Examination of the blood gave the following results: Hemoglobin 85% (Dare), erythrocytes 5,200,000, leucocytes 6,800, of which there were 30% small mononuclears, 2% large mononuclears, 64% polymorphonuclears, 2% eosinophiles

and 2% transitionals. The platelets numbered 50,000 per mm.³ The coagulation time was two and a half minutes. The bleeding time was one and a half minutes.

The hemorrhages rapidly disappeared and the ulcer at the vaccination site healed.

On May 22 there were no red blood cells in the urine and the benzidine test was negative. There was 87% hemoglobin (Dare), 5,420,000 erythrocytes and 6,900 leucocytes, of which there were 33% small mononuclears, 4% large mononuclears, 60% polymorphonuclears, 1% eosinophiles, 1% basophiles and 1% transitionals. There were 460,000 platelets per mm.³ The coagulation time was two minutes. The bleeding time was forty-five seconds.

The patient had his first attack of purpura at the age of thirty-two. There was no precipitating cause but his health had been poor. The attack was slight. There were only a few petechiae on the legs and arms.

Two years later he had an attack with more numerous skin hemorrhages.

His third attack occurred at the age of thirty-seven, following his participation in a hotly contested baseball game. On this occasion he had epistaxis lasting sixty-four hours.

At forty he had the fourth attack. It started in the tongue without any apparent cause and his eyelids filled with blood.

Three years later he had an attack featured by smoky urine and bloody stools. The skin hemorrhages were very extensive. The bleeding continued ten days and it was thought that he would not survive. The attack stopped as suddenly as it had begun.

The sixth attack occurred nineteen years ago.

His condition following the attacks has always been surprisingly good. Fresh fruits and vegetables have ever formed a substantial part of his diet. None of his three children show a hemorrhagic tendency. He had an uneventful successful vaccination at the age of 14.

Carter¹ says that purpura is one of the rarest complications of vaccination against smallpox. A very clear description was written by Gregory² in 1842. Nocke,³ who describes a case in an infant, says these cases are examples of Werloff's

1. Carter: "Vaccination Rashes," *Lancet* 1898, II, 477.

2. Gregory: "A Case of Petechial Cow Pox," *Med-Chir. Jr. Lond.*, 1892, XXV, 253.

3. Nocke: "Thrombopenische Purpura Nach Impfung," *Monatsch. f. Kinderh.*, XIX, 1921.

purpura. An idiosyncrasy to the vaccine results in vessel injury and platelet destruction. The decrease in platelets is followed by prolongation of the bleeding time.

Nocke observes that vaccination and variola are simply manifestations of the same disease. Since variola can, under certain conditions (purpura variolosa) cause purpura, it is not surprising that vaccination does the same.

In this case we are dealing with hemorrhagic diathesis which manifested symptoms under the stimulus of vaccinal virus.

104 N. Oak Park Ave.

THE CAUSES OF CHRONIC BACKACHE*

WILLIAM E. SHACKLETON, M.D.,

CHICAGO.

Backache may appear to some of you to be a hackneyed subject. Nevertheless, it constitutes one of the commonest complaints, and because of the lack of interest shown in it and its manifold causes by our profession, the growth of various cults of charlatans has resulted. These charlatans know even less about the back than the most ignorant member of our profession but their insistence on the fact that all the ills to which the flesh is heir have their origin in the spine has yielded them a fat living and a position of semi-respectability in the community.

I offer no excuse for the title of my paper. Backache is a subject of the greatest importance, but because of its magnitude, my discussion will be limited to a consideration of the more chronic types of backache, omitting for a more convenient time a consideration of the acute and extremely severe back pains which accompany such conditions as cord tumors, meningeal inflammations, extensive fractures, dislocations, acute osteomyelitis, and recent injuries.

The more chronic types of backache include the ache of constitutional disease, the ache of toxemia, reflex backache, and backaches due to faulty posture and the backaches due to local conditions.

The back, of course, includes the entire area between the cervical region and the coccyx. Common usage, however, restricts the meaning of the term to the area included in the lumbar and sacral regions. The framework of this region

is that of a flexible column, composed of segments so arranged as to give a maximum of strength and mobility, together with the power of absorbing shock and vibration. Each vertebra is composed of a body and a vertebral arch. The bodies of the vertebrae are more or less oval in the horizontal direction and have a flat or slightly concave upper and lower surface. They are composed of soft, spongy bone covered by an outer layer which is extremely hard and strong. Between the bodies of the vertebrae are the strong, rubber-like, fibro-cartilaginous discs. These vertebral discs aid in absorbing jars and vibrations and render limited joint motion possible. The vertebral arches form a protecting canal for the cord and its associated structures. The articular processes on the arch interlock with those of the vertebra above and below and yet allow a limited motion of the one upon the other. The spinous and transverse processes make splendid muscular and ligamentous attachments possible, producing union of numerous small bones into a functioning organ—the spine. The muscles of the back are exceedingly strong and seemingly complex due to their multiple insertions. However, the movements of the spine which they control are simple and consist of flexion, extension and lateral motion or bending. Rotation of the spine is accomplished by the simultaneous action of flexion and lateral motion.

Static Backache. You will remember that the lumbar portion of the spine curves well forward of the weight bearing line making the normal lumbar curve. If this curve is maintained and the muscles are in perfect tone it is easy to see how the balanced upright position is maintained. As a result of muscular imbalance, or a deviation of the normal curve, all degrees of strain may be produced. Without alterations in the structure it is, therefore, possible to have backache of varying degrees of intensity purely as a result of functional disturbances.

Anything which changes the normal weight bearing lines brings excessive strain and stress on the muscles and ligaments of the back, resulting in discomfort or pain. You are all familiar with the complaints of backache made by patients who are confined to bed by some simple ailment. They will have pillows placed under their backs; have them withdrawn, and again replaced until even their attendants have backache. Gradually the ligaments relax as the muscles have already

*Read before the Englewood Branch, Chicago Medical Society, April 3, 1923.

done, and the backache disappears. When the upright position is again assumed, the backache may return until the patient again becomes accustomed to the change of posture. Patients who have had complete muscular relaxation from the administration of a general anesthetic frequently complain of backache. The pain results from overstretching of the ligaments, which, when unsupported by the muscles, are not strong enough to maintain the normal lumbar curve. It can be prevented by supporting the lumbar curve while the patient is on the table and after returning to bed.

A common postural defect resulting in backache is the spondylitis deformans of old age. Infection does not necessarily play a part in this condition. With increasing years, in a subject accustomed to hard labor, the intervertebral discs lose their elasticity and the spine its normal curve, which, of course, results in strain. The narrow-chested, stooped-shouldered victim of phthisis, the flat-backed vagotonic with splanchnoptosis, the lordotic woman whose walk has been described as the pride of pregnancy gait are all victims of backache, and correction of faulty posture will not only give much-sought-for relief but may aid in the relief of their general condition.

Habitual labor in unnatural positions frequently causes backache. If prolonged, there may be a compensated spinal curvature, or a muscular hypertrophy, as is frequently seen in the case of young girls who are required to mother younger children.

Shortening of an extremity from a fracture, coxa vara, hip disease, or uneven growth may easily cause the common complaint, by increased ligamentous strain. This is well illustrated by the case of a girl of fifteen, the daughter of a truckgardner. The patient was tall, fully developed and weighed 175 pounds. She had always done heavy work around the farm, and her full share of work in the stooped position, such as weeding of onions and small vegetables. For a year prior to the examination she had complained of backache, gradually increasing in severity. Examination of the patient on the table was entirely negative. There was no localized point of tenderness, no muscle spasm, no rigidity, or hypermobility. The lumbar curve was normal, and there was no evidence of back deformity. Examination of the patient standing revealed a dis-

tinct lateral lumbar curvature. Measurements of the extremities revealed one and one-half inches shortening of the left leg. The backache was cured by an extra thick sole and a heavy inner sole on the left shoe, which corrected the deformity responsible for the curvature.

Toxic Group. Backaches from constitutional diseases and toxemias, I would like to omit. Just why fevers, tonsillitis, influenza, smallpox, syphilis, tuberculosis, focal infections, metabolic disorders, toxemia of intestinal absorption and toxemia of various poisons should so often show a predilection for the back is more than I can explain, except on the basis of loss of muscle tone and added strain. As we become tired, weak, or even despondent we tend to slump and assume the former attitude of our ancestors. The change cannot be made in either direction without pain and suffering. These cases are characterized by pain which is described as of a burning, aching character, and is frequently first noticed on pressure. It is not relieved by change of posture. The diagnosis depends on the history, history of infection, onset, location of the lesion, temperature, and laboratory findings, particularly the white count, Wassermann, blood sugar, and non-protein nitrogen determination.

Reflex Backache. Roughly speaking, the sensory fibres entering the posterior horn and the motor fibres from the anterior horn of the spinal cord are joined just distally to the posterior root or sensory ganglion, as they pass out through the intervertebral foramen. The nerve trunk then divides into an anterior and a posterior branch. The posterior branch supplies the back, and the anterior branch the abdominal muscles and the extremities through the lumbar cord. Just before division into anterior and posterior branches, fibres to the sympathetic ganglia are given off. It is apparent then that one and the same cord segment may furnish the nerve supply to the pelvic viscera and to somatic structure. Since this is so, it is possible to have reflex causes of backache from involvement of the pelvic viscera, the sensations being reflected through the sympathetic ganglion and felt as pain in the corresponding somatic segment. The lumbosacral cord, as it descends from the intervertebral foramen, passes out over the pelvic brim directly on the bones of the linea innominata. Exposed in this manner, subject to pressure of pelvic or abdominal tumors or organs, local inflammatory

reactions, or the pulling of adhesions makes the problem of reflex backache one of great possibilities.

Local Conditions Causing Backache. Local conditions which cause backache are congenital, metastatic, infectious or traumatic. Myositis, lumbago or trenchback¹ is the most common type. It is usually caused by direct violence, overstretching of the muscles, or prolonged exertion. Posture, congenital malformations, toxemia of bacterial origin, toxemia of exogenous origin and metabolic disorders play an important part in this condition as predisposing factors and should always be taken into consideration. Myositis must be differentiated from lesions of the spine, from neuritis and from strain. The most important point in the differential diagnosis is the generalized location of the pain. In muscle strain the pain is localized and the injury is at the junction of muscle fibres and fibrous tissue. In neuritis the pain corresponds to the peripheral distribution of the nerves involved. Lesions of the spine are more likely to be segmental, and to cause pain in the radicular distribution of certain nerves, or show gross pathology on x-ray examination.

Ligaments of the spine, like the ligaments of other points, are not subject to painful lesions except as their periosteal or muscular attachments are involved. They have no sensory nerve receptors as have muscles. Relaxation of the ligaments, however, may give rise to severe pain and disability through abnormal joint motion, as is witnessed in sacro-iliac subluxation, which will be discussed later. Typhoid spine and trichinosis involves both ligaments and soft tissues. Both conditions occur frequently enough to cause us to be on the lookout for them, but are usually not difficult to detect provided a careful history of the case has been obtained and the usual routine laboratory work has been done in making the physical examination.

Tumors of the back which cause backache are usually metastatic from primary carcinomas of the uterus, prostate, and breast. They should be suspected on finding a primary carcinoma elsewhere if the patient complains of back symptoms. A positive diagnosis is sometimes difficult, as is illustrated in the case of Miss S. This patient had her breast removed for a suspected carcinoma. The surgeon did not confirm the diagnosis

by laboratory section of the issue. The operative wound healed perfectly and there were no signs of tumor recurrence in the breast or axilla. Three years later she complained of backache, which was relieved by the usual treatment of lumbago. After several months' time the backache again returned and remained persistently. Diagnosis was finally determined by a lateral x-ray of the spine. Death occurred as a result of general carcinoma metastasis.

Diseases and Injuries of the Spine. The chronic infections of the spine are osteoarthritis, osteomyelitis, tuberculosis and syphilis. Osteoarthritis and osteomyelitis follow focal infections and differ in no way from osteomyelitis and arthritis elsewhere in the body. Fortunately osteomyelitis is not a common spinal lesion and when it does occur, usually is metastatic from osteomyelitis of other bones in the body. Osteoarthritis is usually slow in development, and gradually progressive. Trauma is frequently an etiological factor, sometimes the only factor, as in cases of spondylitis traumatica. In these cases injury to the cartilaginous discs results in bony proliferations, agglutinating the vertebrae involved.

Tuberculosis of the spine is very common and generally starts in the bodies of the vertebrae. In contradistinction to syphilis which involves the spinous processes. Syphilis of the spine is a disease of adult life while tuberculosis is more frequently a disease of childhood. A positive Wassermann reaction and response to therapy, of course, makes the diagnosis of syphilis relatively easy. In any case occurring during childhood or early adult life, which shows localized rigidity of the spine or beginning kyphosis, tuberculosis should be suspected. The lateral x-ray picture helps to make a diagnosis long before the anterior-posterior view shows any evidence of disease.

Congenital malformations of themselves need not cause backache. They do, however, weaken the spinal column, making it more susceptible to injury, toxemia or postural change. The common malformations include spina bifida occulta, segmented sacrum, and anomalies of the transverse processes of the fifth lumbar vertebra. With the exception of the sacralized fifth lumbar, congenital malformations are usually discovered by radiographic work done for other conditions. In cases of the fifth lumbar involvement, pres-

1. J. D. Sandes, West London Medical Journal, June, 1916.

sure is frequently exerted on the lumbar roots of the lumbo-sacral cord, causing symptoms comparable with those of cervical ribs. This is illustrated by the case of H. M. "For six months previous to entering the hospital the patient had complained of aching pain over the right hip and right lower lumbar region. The pain gradually increased in severity until for a period of six weeks before entering the hospital he was unable to assume the upright position. At this time the pain radiated downward and into the peroneal group of muscles. He consulted physicians who treated him for arthritis and lumbago without any improvement. Even under immobilization the condition became worse. Physical examination showed a well-developed man of about 170 pounds. He was unable to stand erect; there was a marked lateral curvature of the spine convex to the right, slightly atrophy of the gluteal muscles, and marked atrophy of the peroneal group. There was tenderness just above the right sacro-iliac joint, and rigidity of the lower vertebrae. A roentgenogram showed a large, bifid, transverse process on the left side of the fifth lumbar vertebra. The right transverse process was a straight prolongation, pointing outward and downward, impinging on the sacro-iliac articulation."²

Among the injuries of the spine which cause chronic backache are spondylolisthesis, or forward dislocation of the fifth lumbar vertebra on the sacrum, rotation of the fifth lumbar vertebra on the sacrum, sacro-iliac subluxation, and compression fractures. Spondylolisthesis and rotation of the fifth lumbar vertebra may be considered together. They are the result, as a rule, of slipping and twisting of the body while carrying a load. Both conditions were seen frequently in returned soldiers and almost invariably the history was the same; while carrying a load the patient stepped in a shell hole and twisted his back. Not infrequently the condition was associated with a fracture of the fifth lumbar vertebra, or with elongation of the transverse processes which, acting as a fulcrum on the ilium, rotated the body of the vertebra on the sacrum.

Sacro-iliac subluxations fall into two classes, the static group and the traumatic group. Static backache has already been considered and repetition is not necessary since the increased mobility

of the sacro-iliac joint, which causes the pain, is due to increased strain and gradual relaxation of the ligaments. The traumatic group give a definite history of direct or indirect trauma, such as a twist when out of balance, unilateral direct strain, or a fall, landing on the feet or buttocks, etc. In all cases of sacro-iliac subluxation the pain is generally unilateral. It is of the greatest intensity over the affected joint, and may radiate tract the diagnosis and clear his good name. upward or downward along the course of the sciatic nerve. Inspection of the patient shows obliteration or diminution of the normal lumbar curve. The patient walks with a forward stoop, lists to one side, and usually carries the hand over the joint involved, making every effort to immobilize it. Frequently the patient will discover that a tight belt around the iliac crests will relieve the pain and enable him to carry on his usual occupation. Diagnosis may be confirmed by proper reduction and temporary strapping, which usually gives immediate relief.

Compression fractures deserve special mention because of the frequency of their occurrence. Naturally they fall into the acute conditions and it should not be necessary to consider them here. However, they so frequently remain undiagnosed and cause chronic pain that we must take them into consideration. The history is always one of forward flexion of the spine. In my experience the condition has been produced in several ways, as for example, falling on the buttocks, the falling of an auto or box car on a repair man working underneath in a sitting position, the falling of coal or slate on the shoulders of a miner. One case in particular, the patient was pulling on a wrench when it slipped off and he fell backward under a machine a few feet away. The usual diagnosis in cases of this type is sprain, and frequently the patient continues his work only to find out that after a week or two weeks he is more and more disabled with pain in the back. After a few weeks a kyphos develops, frequently to the doctor's surprise, for the x-ray has shown no evidence of fracture. I have had a large number of these cases within the past two or three years, some of whom were called malingerers because they had not worked for two years. One patient had been radiographed seven times without finding any evidence of a fracture. The physician who had attended the case could not believe it possible that his patient had a fracture and

². Shackleton, W. E., *Jour. A. M. A.*, May 20, 1916, LXVI, 1600-1602.

went to great trouble bringing his plates, and witnesses from southern Illinois to make me re- His plates were all made in the anterior-posterior position. To avoid errors the radiographer should, in addition to the usual views, take views in the lateral and both oblique positions. The technique is difficult but not impossible, especially since the introduction of the Potter-Bucky diaphragm. Lateral views many times make early diagnosis, thus saving the patient much time and expense, and the doctor much embarrassment.

25 E. Washington Street.

FOOD DESENSITIZATION IN BRONCHIAL ASTHMA

LEON UNGER, M. D.,

Associate in Medicine, Northwestern University Medical School

CHICAGO

The literature on bronchial asthma has become very voluminous these past few years. With increasing knowledge of the basic causes, with the introduction and standardization of the cutaneous protein tests, case reports are piling up. Cases of true bronchial asthma, i. e., those due to a protein derived from plant, animal, food or bacterial source, are being cured with great success. It is true that we still meet with a disappointment now and then and fail to relieve a patient whom we feel could be cured. But the more thoroughly and carefully we test out the possible offending proteins in the particular case the fewer are the failures.

Besides the palliative methods of treating bronchial asthma, such as drugs, there are several specific ways. First and foremost is the method of omitting the offending protein where it is possible. Thus, if we find that fish or cheese is the cause, using the skin tests as our guide, we can simply omit the protein from the diet and the asthma promptly stops in most cases. This plan is applicable in most instances where the particular article of diet can be eliminated. But where the item is a food which is well-nigh indispensable, such as milk, egg, or wheat, the problem is more complicated. These three enter into so many different foods that it is almost impossible to keep a patient free from them for the rest of his or her life. For these cases it is better to desensitize them, either by feeding or by hypodermic treatments. The

feeding method consists in giving minute amounts of the offending protein either in pill or liquid form and gradually increasing the dose until large amounts can be ingested without bringing on a spell of asthma. This plan has been successful in many cases, but it demands great care on the part of the patient or parents and remarkable perseverance. The successes reported have been in the conscientious patients. The failures have been many, either because supervision on the part of the physician has not been as close as possible or because the patient became careless and quit before success was attained. Because such a large percentage of patients cannot be relied on to complete the tedious technique of increased feeding of proteins it seems to the writer that the hypodermic method of injecting the proteins is preferable and will come into greater and greater use.

Of course, if the protein comes from plant or animal or bacterial sources we must resort to the hypodermic desensitization method in those cases in whom we cannot remove the causative article. Thus, chicken feather asthma can usually be easily relieved merely by substituting a cotton pillow for the one containing chicken feathers. On the other hand, in patients sensitive to horses where economic conditions demand continued contact with horses hypodermic desensitization is essential.

The following is a report of a case of wheat asthma successfully treated by hypodermic medication:

Miss K., aged 41 years, was referred April 18, 1922. She has had typical attacks of bronchial asthma, consisting of spells of dyspnea coming on three or four times weekly, at irregular intervals. Any slight deviation from her regular mode of existence was sufficient to bring on an attack which caused great suffering and lasted various lengths of time, from a few minutes to several hours or more. The onset was about thirty years ago. During all this time her life was more or less miserable as the least exertion or unusual happening would bring on one of these spells of dyspnea. For the last few years cough and wheezing have been present between as well as during attacks, although more severe during paroxysms. She knew of no cause nor could she connect any particular article of food with her trouble. The rest of her history, including past illnesses, family, habits, and menstrual, was negative.

Examination revealed a moderately well nourished woman not acutely ill. Wheezing was easily heard and a cough was associated. The pupils were equal and reacted to light and accommodation. The teeth

and throat were negative with small, normal tonsils. The heart was normal with a blood pressure of 135-80. Her lungs showed normal percussion sounds but many moist and wheezing rales throughout both sides. The abdomen, extremities and reflexes were normal. Urine and sputum examinations were negative.

Cutaneous tests were done, the proteins being obtained from a large pharmaceutical house. The usual technique was followed, making slight incisions in both forearms, being careful not to draw blood, putting on each cut a little of the protein, adding one drop of tenth normal sodium hydroxide, and watching for one half hour. All tests, including controls, were negative with one exception. Whole wheat gave a tremendous reaction; the papule with this protein had a diameter of 2 cm.

The patient was informed that wheat was the cause of her asthma and then she remembered that her first attack came thirty years before when she inhaled some flour while helping her mother bake. At that time she recalled that she had a very severe spell; since then attacks followed more or less regularly all these years. She had never associated her trouble with wheat in any form and could not recall any other attacks coming as direct results of inhalation or ingestion of wheat in any food particle. She ate liberally of wheat in various products, such as bread and pastries and liked baking immensely.

Wheat was eliminated from her diet at once and she was advised not to come in contact with flour. The result was almost magical. In a few days the wheezing and rales disappeared and have not returned since. She felt well and said that she could not remember when breathing was so easy.

Desensitization was begun May 29, with 1:5000 dilution of whole wheat (the treatment set was obtained from the same firm as the proteins); a cutaneous test with this dilution gave a slight reaction. One minim subcutaneously was given as the first dose, then at intervals of two days increasing doses up to ten minims. Then a skin test with 1:1000 dilution proved negative and increasing doses from one to ten minims were given of this strength. Lastly, after a negative 1:500 dilution cutaneous test, doses from one to ten minims of this solution were injected. The last hypodermic was given August 4. She felt well throughout and had no reaction at all. Skin tests for whole wheat were negative at the conclusion of the hypodermic injections. Then feeding wheat was resorted to, beginning with a small square of white bread daily. As no reaction ensued larger and larger portions were permitted until now she is eating as much bread as she wishes. In addition, she is also allowed pastries. She also has been permitted to resume baking. Another skin test for whole wheat was negative a week ago, then all wheat was stopped for three days, then another cutaneous test also failed to show a reaction.

At the present time the patient has no complaints. She has had no attacks of asthma since wheat was first eliminated from her diet. She has taken up new lines of work such as gymnastic exercises which

formerly were impossible because of her frequent paroxysms.

CONCLUSION

The above is a report of a case of wheat asthma diagnosed by cutaneous tests and relieved at once by elimination of wheat from the diet. Following this desensitization was attempted by subcutaneous injections of wheat beginning with a minute dose and increasing gradually and finally permitting eating of wheat. To date the result has been entirely satisfactory. Desensitization was proved by the negative cutaneous tests following treatment.

So far as the author can ascertain this case is the first one reported in which a successful result was obtained by the subcutaneous method of desensitization in any case of bronchial asthma due to a food protein.

Many thanks are due to Dr. J. H. Frazer of the Arlington Chemical Co. for valuable suggestions.

25 East Washington Street.

TREATMENT OF CARBUNCLE *

EDWARD L. MITCHELL, M. D.,

MONMOUTH, ILL.

I have used a treatment for carbuncle that I have not seen described elsewhere.

I first used it in a case so extensive that any operative measures were entirely impracticable, and it seemed that the usual crucial incisions would offer very little or no benefit. This patient was a man, aged seventy years, he had a carbuncle that extended entirely across the back of his neck. He was markedly septic and his recovery was not expected. In determining on some antiseptic that would be safe to use, I decided to inject through the entire diseased mass a solution of permanganate of potassium. I used the chemical in excess of saturation so as to have a part of it in fine suspension. With a glass syringe and a large caliber needle I forcibly injected it until the solution exuded from the entire suppurating mass. Before giving him this treatment, he had a full dose of morphin and whiskey. Three hours after this treatment he suffered intense pain that required morphin; no further anodyne was necessary and he remained practically comfortable. The injection was not repeated and the septic process was stopped, and the only further local treatment used was a gauze dressing saturated in

*Read before the Monmouth Medical Club, 1923.

this solution. He made a good and rapid recovery.

This was over twenty years ago. Since that time I have used this method in rather a large number of cases with gratifying results.

In a recent case, a man aged thirty years with previous good health, said that seven days ago he noticed a small pustule on his neck. It was painful; it had been opened and treated with various local applications. I found he had a carbuncle an inch in diameter with seven pustular openings, situated in the lower triangle of the neck, pressing on the trachea and surrounded with extensive cellulitis. He breathed with some difficulty and said that he was very sick. I gave him morphin and scopolamin, then injected it through each pustular opening with a strong solution of potassium permanganate, using some force so as to disseminate the chemical into all the diseased tissue. After three hours he required an anodyne. That night he slept and was free of pain. In a week the necrosed mass separated and he made a rapid recovery. On account of the situation of the carbuncle and the swelling I considered it entirely impracticable to excise it.

I treated one on the upper lip by this method with good results. In this case the tumor was near the nose. This is peculiarly dangerous on account of the circulation communicating with the brain. It is a question whether an attempt to ligate the angular artery and vein should be made, before commencing any treatment when the disease is in this location.

On account of the successful cases I have treated by this method and from reports made to me by physicians to whom I have suggested it, I believe it to be of exceptional value. The solution is safe to use; in this infection it acts as a powerful and efficient antiseptic, the disease process is stopped, an anesthetic is not usually necessary; it does not open up healthy tissue to possibly cause extension of this septic process.

Technique: Use a solution of permanganate of potassium in excess of saturation so as to carry particles of the chemical in suspension. Use a syringe with a large caliber needle, avoid healthy tissue, introduce it through necrotic areas or pustular openings, wrap gauze around the needle, press it against the tumor, use some force so as to make it penetrate the entire mass. After-treatment, dress it with gauze saturated with a solution of the same drug.

A STANDARD FOR THE DETERMINATION OF CURE OF GONORRHEA IN THE MALE*

FRANK M. PHIFER, M. D.

and

N. K. FORSTER, M. D.,

CHICAGO

Recent agitation concerning the passage of more stringent regulations for the control of the venereal disease problem, brings up again the question of the establishment of a definite standard of cure in gonorrheal infections. Many attempts have been made in the past to outline some standard series of tests through which a definite conclusion could be reached as to whether a gonorrheic was still infectious or not; while the voluminous literature available on the subject serves to accentuate the multitude of divergent views and opinions.

Every physician who treats gonorrhea usually has a routine method of his own through which he attempts to satisfy himself, or the patient, that a cure has been attained. That the methods in common use are wholly inefficient, and the means employed for the determination of a cure entirely unsatisfactory, is readily borne out by the large number of recurrent cases of gonorrhea in the files of every urologist. Where then does the trouble lie? Is the fault to be found with the physician who attempts to treat gonorrhea, and is unschooled in the proper methods of treatment; or is unwilling to properly apply the tests to determine a cure, and is satisfied to base his conclusions on clinical symptoms? Certainly many of the recurrent cases can be traced to this source. Does the fault lie with the patient who is either unwilling to persist in his treatment; or who, becoming discouraged, goes from one physician to another, running the gamut of interrogations and tests, until he finally gives up trying or becomes a confirmed neurasthenic? Far too many cases belong to this class. Is the trouble to be found in the fact that the difficulty in working out a standard of tests that will meet all the various requirements is too great, not only in their formation, but in their application to the patients? Apparently from the large number of standards suggested this

*From the Department of Cystoscopy, Skin and Venereal Diseases, Cook County Hospital, Chicago.

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must play a very important part. Many are too severe, a larger number too lax, and the result is that recurrences continue and our solution is still in the haystack of medical problems.

It is not the purpose of this paper to enter into a discussion of the moral and legal aspects of the question of a cure in gonorrhea, or the many side lights which bear upon the subject; nor is it our purpose to attempt to lay down any hard and fast standard of cure in gonorrhea. Experience has taught that every gonorrheic is a case unto himself, and should be handled as such. No single standard will suffice to establish a cure in every case, and it is only from a complete understanding of the essential pathology, as well as the associated pathology present in each case, that proper methods may be employed in the treatment, and a guide established for the pronouncement of a cure.

That a knowledge of these facts is generally wanting is readily seen in the optimistic "discharged as cured" attitude of many physicians; while the pessimists continue to over-treat their patients, and the social and health workers cry for more and more stringent regulations. A broad-minded view with the avoidance of extremes will accomplish more in the determination of a cure, than all the trusting to luck and the aid of nature, or the forcible establishment of a rigid and protracted severe standard of tests. Rules and regulations, isolation, quarantine and hospitalization cannot hope to control the venereal disease problem; but if their enforcement will accomplish the education of the public to the extent that they will cease to regard gonorrhea as a simple condition, and will no longer expect to be cured in three or four weeks, then they will have served a purpose.

The question to be answered in dealing with a patient who is suffering from gonorrhea, or who has had gonorrhea, concerns the possibility of his being able to infect another person. This question can only be answered when it can be determined that the gonococcus has entirely been eliminated from him. Like diphtheria, typhoid and other acute infectious diseases, the acute stage of gonorrhea may be followed by the cessation of symptoms, so that to all appearances the patient is over his gonorrhea. Massage of the prostate and seminal vesicles, and examination of the expressed secretion will show, in a large number of cases, that the patient is not cured;

and it is surprising the number of patients one comes in contact with who have never even had a rectal examination to determine the condition of their prostate and vesicles, let alone an examination of the prostatic and seminal secretions. The number of so-called "cured" patients who have suffered relapses or recurrences years after their initial gonorrhea is legion, and undoubtedly the number of persons whom they have infected, either innocently or carelessly, cannot possibly be computed. Such patients may be considered as "carriers" and some method of controlling them is sought. Hospitalization, isolation or quarantine are drastic and inefficient, for it is a matter of many months before these patients can possibly be cured under our present knowledge and methods of treatment. Efforts directed at the education of the public, and the enforcement of treatment where possible, appears to offer the best outlook at this time.

In dealing with patients who present themselves for the determination of a cure, whether these patients have been under our care previously, or in the hands of others, we have attempted to adhere to the following routine examination, which if passed with negative findings, we believe warrants the discharge of a gonorrheic as apparently cured. We do not set this up as a definite standard of procedure in determining a cure, but feel that when due regard is had for the particular conditions existing in a given case, an examination of this type will serve to establish the presence or absence of gonococci in the majority of cases. Neither do we attempt to submit every patient to the same routine over the same period of time. Certain patients will not require as long a period of observation as others, particularly those whose infection occurred some time previously, and in whom no symptoms have been apparent for a considerable length of time; or fairly recent cases where no demonstrable complications are found. As already stated much depends upon the pathology present in each case, and the procedure and period of observation must be left to the judgment of the examiner.

History: A detailed history of the essential facts in connection with the case is of great value. Besides establishing the date of the initial infection, it reveals the number of subsequent infections, and is of great help in estimating the probable pathology present, as well as serving

as a guide in the matter of treatment, and in determining the period of observation.

Regional Examination: Whenever possible it is always advisable to conduct the examination as early in the morning as convenient in order to secure a specimen of the morning discharge when this is present, as well as of the first urine passed. The examination of the genital region is carried out in a routine manner. The inguinal regions are examined first and the presence or absence of adenopathy, herniae or other abnormal conditions noted. The scrotum is inspected and its contents palpated for the presence of both testicles, evidences of inflammatory changes in the epididymides, abnormal swellings of any kind, and the presence of fistulous tracts. The penis is inspected for evidence of edema, venereal warts, or ulcerations. A red halo about the urinary meatus practically always speaks for the presence of an active infection, although its absence does not mean that no infection is present. The presence of infected meatal glands, or Tyson's glands, or paraurethral ducts, are sought in all cases, as these are a frequent source of trouble. Palpation of the shaft of the penis will often reveal the severity of an infection in the amount of periurethral induration, and small abscesses are frequently demonstrated in this manner. The penis is also carefully inspected for the presence of any fistulous tracts. In general a systematic inspection and palpation of the parts is carried out, and all pathological findings noted, as their presence will greatly influence the course of treatment and the period of observation.

Evidence of Urethral Discharge: The presence of a discharge in the absence of further tests is not always sufficient criteria for the statement that the patient has gonorrhea. However its presence is very presumptive and a careful examination by smear and culture should be made. Positive smears or cultures are of course sufficient to establish the diagnosis; while negative smears or cultures are not sufficient to exclude the possibility of gonorrhea when they are taken from the urethra alone. In the absence of any demonstrable urethral discharge, the attention is next directed to the character of the urine.

Examination of the Urine: For the examination of the urine as followed in this routine, as well as the subsequent examination, it is necessary that the penis be rendered as sterile

as possible. To accomplish this the glans, prepuce and shaft of the penis are thoroughly scrubbed with soap and water, followed by a rinsing with a 1:5000 solution of Potassium Mercuric Iodid. The three glass test is then used in the following manner: The patient is instructed to pass a part of his urine into one sterile glass container, part into another container which does not have to be sterile, and to retain the remainder in his bladder until his prostate has been massaged. The character of the urine is noted in both containers, and the first specimen centrifuged, cultures of the sediment made, and smears examined for pus and organisms. A clear sparkling urine in which no pus can be demonstrated, forms a valuable guide in conjunction with further tests in arriving at the final conclusion. The presence of shreds is considered of importance only in cases where examination of the centrifuged specimen reveals pus cells, in which case further examination will usually show the focus and the causative organism. A turbid urine not due to the presence of phosphates or urates, will show large numbers of pus cells, and is sufficient to preclude the possibility of a cure at that time.

Examination of the Prostate and Seminal Vesicles: Before proceeding with the examination of these structures, the penis is again rinsed in the Potassium Mercuric Iodid solution, after which 5 c. c. is injected into the anterior urethra and allowed to remain there for one or two minutes, followed by a gentle flushing with sterile water. Keeping the penis as sterile as possible, the general condition of the prostate and seminal vesicles is noted by the palpating finger in the rectum. Evidences of induration, nodules, enlargement and tenderness are noted before massage is resorted to. The prostate is massaged first, and the procedure usually accomplished in six to eight strokes, after which the vesicles are expressed and the finger withdrawn. A frequent unnecessary and often dangerous proceeding is to massage with force, or for any length of time. Properly done the prostate and vesicles are readily drained of their secretion in a few gentle strokes. The secretion is collected in a sterile test tube, and the patient is then instructed to void the remainder of his urine into a sterile container.

Cultural Method: Herrold¹ and others have shown that the cultural method is the most

reliable single means of determining whether or not a patient is gonococcus free, and the examination of the expressed secretions and the urine is then carried out by this method. However its use requires considerable experience, and for one who is not equipped to carry it out, it is much better that the specimens be immediately sent to a competent bacteriologist. The necessity for an immediate examination lies in the fact that the organisms are readily killed on standing any length of time, and consequently cultures to be of any value must be made at once. If the cultures are to be made by the examining physician or his technician, the following method is suggested. Several platinum loopsful of the expressed secretions are streaked on five or six plates, the medium used being ascitic agar in which dibasic sodium phosphate is substituted for the sodium chloride in ordinary nutrient agar, as suggested by Martin² and Herrold. The ascitic fluid is added to the melted agar at the time the plates are poured in the proportion of 1 part of ascites fluid to 2 parts of agar. Similarly several plates are streaked with the sediment of the centrifuged urine passed into the first sterile container, and also that passed after the massage of the prostate and vesicles. Smears are then made from all of the specimens, and examined for pus and Gram negative diplococci. In old chronic cases it is practically impossible to find any organisms in the smears, but the presence of pus in any quantity is usually sufficient evidence to warrant the conclusion that the patient has a focus in his prostate or vesicles, which in the majority of cases will be demonstrated in the cultures to harbor the gonococci. Too little attention is given to this fact, and accounts in a large measure for the number of recurrences in after years. The cultures taken are incubated at once, and are not disturbed until the following twenty-four hours have elapsed. Smears of suspicious colonies are then made, to be followed by sub-cultures of colonies of Gram negative diplococci found. Should any question arise as to whether the organisms grown are gonococci or not, agglutination tests with a polyvalent anti-gonococcus serum may be made, but this is rarely necessary after one has had some experience with the cultural method. Further confirmation as to the identity of the organism may also be secured by means of fermentation tests.

Examination of the Urethra: By employing a

bougie à boule of suitable size, strictures or infiltrations of the anterior urethra may be detected. Following which a sound, whose calibre is in accordance with the calibre of the urethra as determined with the bougie, is introduced, and by gentle palpation over the sound any glandular infiltrations may be revealed. In place of the sound an olivary tipped silk woven bougie may be employed.

Provocative Injections: Silver nitrate in 1 per cent solution, because of its efficiency in producing a local inflammatory reaction in the urethra, is the most commonly used for provocative purposes. An anterior-posterior injection by means of a Guyon catheter and syringe is given and the solution retained for from three to five minutes. The value of provocative injections is questionable, and they are certainly inferior to careful cultural methods, since an infection dormant in the prostate and vesicles is not directly disturbed from local urethral irritation. However the fact remains that an acute exacerbation of a latent gonorrhea often occurs as a result of the injection, and diagnosis and prognosis are thus rendered easier. The use of provocative injections of vaccines also meets with some objections, chiefly through their interference with the proper interpretation of the gonorrheal complement fixation test. This, of course, refers to the use of the usual stock polyvalent gonococcus vaccines, of which 100,000,000 killed organisms are given. Despite the fact that it apparently has little influence on the cultural results, there can be no question of the value of a vaccine in bringing to light a latent gonorrhea, and to obviate the objection to its interference with the complement fixation tests, we have employed a typhoid vaccine. Numerous instances observed by one of us (F. M. P.), in which an acute flare-up of an old gonorrhea occurred following the prophylactic vaccination against typhoid in the army, has led us to employ this method whenever a provocative vaccine seems indicated.

Subsequent Observations and Examinations: To simplify the examination we have in many instances conducted a preliminary examination of the patient on the first day, in which a study of smears alone is made. If these prove positive there is of course no necessity for cultures. If they are negative however, the cultures are made both at the first and second examination. Following the provocative injection of silver nitrate,

and the subcutaneous injection of a stock typhoid vaccine, 5 to 10 c. c. of the patient's blood is taken for a gonorrheal complement fixation test and a routine Wassermann. The patient is instructed to take plenty of exercise during the day, to imbibe alcohol in some form, and to return in 48 hours. On his return, provided the results of the first examination have been negative, smears and cultures of any apparent urethral discharge are made, as well as of the first urine, prostatic and seminal secretions, and the last urine. The urethra is not again molested, nor is he given any further injections, but instructions are given to return at the end of three months unless otherwise notified or he has any further difficulty.

The value of the gonorrheal complement fixation as a check on the cultures cannot be denied. In many instances where negative cultures were secured, the complement fixation test remained positive, and consequently the mistake of discharging the patient was not made. It acts moreover as a guide in prognosis, for it has been a personal observation that in patients showing a strong positive complement with positive cultures the outlook was usually very good and recovery prompt; while those showing a weak positive complement with positive cultures usually had a prolonged course and frequent complications. To be properly done the test requires the services of a trained serologist, and for that reason is not employed as frequently as it should be. For practical purposes the precipitin reaction as advocated by Herrold for gonorrhea, as well as his modification of the Kahn test for syphilis, are relatively simple and very satisfactory.

At the end of the three months period, providing all previous examinations have been negative and the patient has been free from all symptoms, an urethroscopic examination may be made. Many authorities have insisted that no patient should be discharged before several urethroscopic examinations have been made. With this we cannot agree; and believe that so far as serving as a method of determining a cure is concerned the urethroscope may as well remain in the instrument case. Few men know how to employ this instrument, and even those thoroughly schooled in its use, and familiar with the many pathological processes that may present in the urethra, seldom employ it as an aid

in determining a cure in gonorrhea. Our own experience has been that it is of absolutely no value in arriving at the determination of a cure.

In dealing with recent gonorrheal cases, the routine examination as outlined, is carried out at the end of three months, six months and a year. For patients whose infection occurred some time previously, and who have been symptom free for a considerable period, the one routine examination is considered sufficient if negative findings result. In the presence of negative cultural findings, as well as absence of complications and recurrences at the end of a year's observation, the patient is discharged as apparently cured.

It may appear that this course is unnecessarily extensive and time consuming, and that few patients will return for its completion. The examination itself, with the exception of the culturing, constitutes a simple routine urological examination, and should not take more than fifteen minutes at the most provided that one is equipped to carry it out. The culturing requires a little more time and some experience, so that it is better for the physician who is not accustomed to do his own laboratory work, to see that such specimens as are secured are sent to a competent bacteriologist as soon as possible. The length of time required to determine a cure cannot be arbitrarily fixed by any one, and we make no attempt to do so, but the fact remains that fewer recurrences will occur if patients are observed over a year's time, and we employ this length of time merely as a safety first measure. The chief difficulty to be met is in getting the patient to return, and in company with others we have experienced the fact that the intelligent patient is usually willing and anxious to return; while the others have been content to go along paying little heed to their condition until a relapse occurs, when they are only too ready to denounce their former physician as never having cured them.

If there is any one thing in public health concerning the people vitally, it is a knowledge of the fact that gonorrhea is not a disease which can be cured in a few weeks time. While it is true that gonorrhea confined to the anterior urethra will respond to treatment in a relatively short time, it is equally true that by far the largest number of cases of gonorrhea involve the posterior urethra as well as the prostate and seminal vesicles, and the cure of this condition cannot be accomplished under months of treatment,

despite all the optimistic assertions of many physicians, and the careless use of the word "cure" by some of our health workers. Until the day when the public can be made to realize that time is the greatest factor in the treatment of gonorrhea, recurrences will continue no matter how efficiently a patient may be handled. To our minds the whole question resolves itself down to education of the public plus intelligent handling by the physician, and when these essentials are secured the determination of a cure of gonorrhea will offer comparatively little difficulty.

7 West Madison Street.

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A CONTINENT WITHOUT AN ORPHAN

BAYARD HOLMES, M. D.,

CHICAGO

For many years I have published in medical journals annual reviews of the care of orphans by the State Children's Council, especially of South Australia, but often by the Children's Councils of other states of the Commonwealth of Australia.

I have before me the Report of the Children's Council of South Australia for 1921. It might be interesting to know that there is no orphan asylum in South Australia at present. Miss Catherine Spence of Adelaide began picking up the orphans of that colony and caring for them from private subscriptions until they could be boarded out on farms near the city at a small weekly stipend. Miss Clark, her associate, soon saw that the work was growing outside the strength of private initiative and the Council of the Children of the State was organized, with legal control of all destitute and neglected children, all destitute nursing mothers and all licensed wet nurses, with a children's court and children's auxiliary organizations in every county town.

Some destitute nursing mother was given the foundling to care for as soon as it was picked up. The next day or as soon as information could be filed and a hearing prepared, the infant was brought before the Children's Court, and formal adoption made by the State. The child went through medical examination, and was then assigned to some licensed mother, and that mother was paid weekly. No wet nurse is licensed who does not nurse at the same time

her own child or one of the children of the state.

The Children's Council has physicians and police officers and visitors from friendly aid societies who visit and report regularly to the office of the Council on the condition and program of the child.

At a certain age the child, no longer needing a wet nurse, is placed in a farmer's family for a weekly stipend. This varies with the age of the child. The police, the physician, the visitor of the friendly aid society, still make reports each week on the condition of the child, the character of the home and their relations.

At last the child goes to school and the teacher's weekly reports are added to the others.

The traveling visitor of the Council visits every child once a month and every child is visited at least once a year by some one member of the Children's Council.

When the child can do some productive work, age 14 as a rule, he or she is engaged for wages during vacation or week ends and the wages are deposited to the child's credit in the Postal Savings Bank. The children in 1921 had more than \$60,000 to their credits in the Postal Savings Banks.

The population of South Australia is less than 1,600,000, and the Children's Council of South Australia had 1,852 state children under its charge; 1,506 are boarded out, i. e., subsidized; 313 were new commitments; and 304 were discharged during the year 1921. Only 112 (sick, blind, deaf, imbecile, idiots) were on the average in institutions. Only one child was adopted during the year. Adoption can be permitted only when the child is of age and gives his or her consent.

The death rate among the State children was very low, 5.2 in 1921.

Three hundred and seventy-eight foster mothers were licensed in 1921. "Three hundred twenty children were discovered in unlicensed homes." This sentence I do not understand.

The dentist of the Council treated 829 patients, made 996 fillings, extracted 841 teeth. This department cost \$1,500. There was no epidemic. Only 33 died. The total cost of the Council was \$239,000.00. The report is full of matter interesting to the child welfare worker, and the history of the children of the State in the Anzacs during the War, is really inspiring.

X-RAY DIAGNOSIS OF BONE LESIONS

ROBERT W. LOVETT, M. D.

BOSTON, MASS.

The modern surgeon is constantly faced with the question of the diagnosis of obscure bone lesions, and in formulating the diagnosis and treatment of bone lesions he will resort much more often to the x-ray than to direct cutting down. For this reason the x-ray pathology and diagnosis of bone lesion becomes of great practical importance.

Seen from the point of view of the x-ray, bone is a highly specialized structure, possessing a limited reaction to trauma, toxins, and infections. There are certain things that it can do, and certain things that it cannot do; and it will simplify very much the study of x-ray pathology if we define these changes and their relation to clinical phenomena. They may be formulated as follows:

1. *Atrophic changes*, where the bone shadow diminishes, the contrast between the cortex and the medulla becomes extremely sharp, and in the severer cases the medulla casts little more shadow than the soft parts. This accompanies injury, disuse, and is seen in disease—particularly tuberculosis.

2. *Destructive changes*, which are either general or local. The appearances of these are exactly what is indicated by the name—a destruction or disappearance of bone tissue. This may involve a large area, perhaps the end of the bone, or it may appear in small, approximately circular patches, or as notched-out areas. Of the destructive affections, tuberculosis is the most purely destructive, although destruction occurs also in osteomyelitis, and often in syphilis, and at times a wearing away which amounts to destruction in arthritis deformans.

3. *Formative changes*. In this class a new formation of bone occurs, leading to an increase in outline or in density. Arthritis is the most purely formative of common bone affections; syphilis is more formative than destructive; osteomyelitis is both formative and destructive; and new growths are also formative and destructive.

Although with a diseased process there is a tendency toward manifesting one or the other of these types predominantly, two facts must be

remembered: first, that a lesion may possess the characteristics of two groups; and second, that any one of the lesions may show changes of a group which is not characteristic. For example: tuberculosis, although generally purely destructive may show changes characteristic of osteomyelitis, and formative changes may be excited in practically any of the common lesions; as, formative changes characteristic of osteomyelitis, with increase in density and circumference of the bone, may be caused by syphilis, tuberculosis, or osteomyelitis. Consequently, if we use the term osteomyelitis as characteristic of pyogenic infection we are likely to be led astray, and this is a most important matter in the diagnosis.

In the study of the x-ray appearances of tuberculosis, osteomyelitis, and syphilis, we are likely in the majority of cases to find the character of the lesion apparent from the x-ray; but in a minority of cases the diagnosis cannot be made from the x-ray alone. The latter group of cases consists of two divisions.

1. Cases which are absolutely anomalous in appearance, as in formative tuberculosis; and syphilis when it is mainly destructive and but slightly formative.

2. In certain focal lesions resembling what has been described as Brodie's abscess, where the diagnosis in many cases without a microscopical examination is absolutely impossible. A small focal lesion characterized by a circular loss of tissue, occurring near the epiphysis, may or may not extend through it. It may or may not be surrounded by an area of increased density. It may be perfectly clear as if punched out by a trephine, or its interior may be hazy as if containing some bone elements.

Microscopical examination of a series of these cases, reaching over a period of several years, made by Professor S. B. Wolbach of the Harvard Medical School and by the writer, has shown that these cases may be either osteomyelitis or tuberculosis, and that in a fair proportion of cases clinical diagnosis is impossible or unreliable before operation.

The presence or absence of a Pirquet skin test, the existence or non-existence of leukocytosis, the history and general appearance, all aid in reaching the conclusion. However, as a result of these observations it has been shown very clearly in the series of cases just mentioned, that in a certain number of them the writer at least was un-

*Read before the annual assembly of the Tri-State District Medical Association at Peoria, Ill., Oct. 31, 1922.

able to make a diagnosis which stood the test of microscopical examination.

In the same way, the presence or absence of a blood Wassermann reaction has been of great assistance in detecting or excluding syphilis, and the experience of Professor Wolbach and the writer was very definitely to the effect that in bone lesions in children the Wasserman reaction proved a reliable guide in those cases which were checked up by a histological examination.

It seems best, therefore, to recognize that although in general a careful study of the x-ray combined with clinical findings will lead to sound conclusions, there is a very considerable minority of cases where the wise and experienced surgeon will express himself very guardedly as to the nature of the process. In these cases the writer has had recourse to the method of having a microscopical diagnosis made at the time of operation, and being guided in his treatment by the findings of the examination.

Nowhere is a closer correlation between x-ray appearances and microscopical findings more necessary and important than in the study of bone lesions.

MEDICAL MEN WHO HAVE ATTAINED FAME IN OTHER FIELDS OF ENDEAVOR *

W. MOORE THOMPSON, A. B., M. D.

CHICAGO

It is probable that never has a more splendid tribute to the medical profession been paid than that which emanated from the genial literary invalid, Robert Louis Stevenson, while luxuriating amid the tropical delights of his adorable Samoan home. Said Stevenson, "There are men and classes of men that stand above the common herd; the soldier, the sailor, and the shepherd not infrequently; the artist rarely, more rarely still, the clergyman: the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible only to those who practice an art, never to those who

drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and, what are more important, Herculean cheerfulness and courage. So it is that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing."

So wrote the man who knew much of physicians throughout his life of physical frailty, and knowing them well was eminently fitted to pronounce judgment upon them as a class. It is not my province tonight, however, to eulogize the medical profession. Let the sum of the efforts of that profession for human welfare speak for itself. Rather would I, at this time call attention, for a little while, to a certain element of the profession which has broadened out—and I speak advisedly when I say this—to seek mental relaxation in other fields of endeavor, either while still meeting the demands of their chosen vocation, or after they have relinquished this line of work for the newer fields of adventure—and, incidentally, have won fame and distinction.

Perhaps the number of medical men who have wandered from their first love to revel in the delights of other fields is less than those who have defected from other liberal professions. It is not regarded as strange that a clergyman should write poems and philosophical essays or, it may be, evolve a novel with a purpose; and it is quite *comme il faut* to recruit the ranks of critics extensively from the law, and to trust to briefless barristers for a continuous supply of romances. No detail is more frequently discovered in the biographies of eminent writers than that they were called to the bar, but either never practiced law or forsook the calling to engage in literary or political labors—probably the latter by preference. Indeed, it might appear that failure in law was the most decisive step toward success in literary fields. No such rule applies, however, to medical men, nor can such a comment be justified in this case. Not only do we find the writing of books, other than textbooks and technical treatises and brochures, rarer with them, but it curiously happens that in most instances of the famous departures from medicine, it has been the successful practitioners who have done this, not the men walking the hospitals, or waiting, like the proverbial doctor of literature, for calls that but seldom came, who have blossomed out into literature or statesmanship. Indeed, we find that these medico-literatti

*Read before the Gnosis Literary Society, Jan. 11, 1923, Chicago, Ill.

(if I may coin the term) have often been the most hardworking and successful in their profession. The wonder is that they were able to enter upon a second pursuit and follow it so zealously as to achieve success. The results, in the numerous instances in the history of the profession, seem to indicate that, in the case of the physician at least, delving into other fields gives the mind just the needed relaxation to stimulate it to the best and most successful endeavor.

In most of the instances I shall refer to—not all—the new adventure was more than a mere pastime. The impulse to work thus was imperative with them; and the desire for fame or lucrative returns seem only to have been secondary considerations—at last, at first. That these came subsequently in most instances can not be gainsaid. Be this as it may, this much may be safely asserted—that the names of many excellent doctors would have faded from the memory of man ere this, passing, probably, with the generation of which they were a part, had not literature or other chosen recreation conferred upon them lasting renown, overshadowing and almost obliterating the fact that first and foremost they were medical men.

Who cares today that the author of that classic "Religio Medici," took his degrees at London and Oxford and dispensed medicine to the end of his life! Who cares that the writer of "The Borough," "Tales in Verse," and "The Parish Register," was apprenticed to a surgeon, or that the famous "Wandering Jew" was written by a French naval surgeon! Who cares that the writer of such dramas as "Virginius," "William Tell," and "The Hunchback" was trained to be a physician! Who cares that the originator of "Roderick Random," "Peregrine Pickle," and "Humphrey Clinker" was a surgeon's assistant and acted as surgeon's mate in the ill-fated Carthage expedition before trying, unsuccessfully, to obtain a practice in London town! And above all, who cares that the producer of the immortal "Deserted Village," and "The Vicar of Wakefield," studied "physic" in Edinburgh and on the continent and, as Boswell records, "was enabled to pursue his travels on foot partly by demanding at Universities to enter the lists as a disputant by which, according to the custom of many of them, he was entitled to the premium of a crown, when luckily for him, being challenged, was not accepted!" Oh yes! These men were

doctors, it is true, but, over and above this were they geniuses—citizens of the World and donors of great and imperishable gifts of literature to their fellow men.

Perhaps it is because of their cherished and honored position in the community that writers have seen best, for the most part, to depict the doctors of their books and stories as lovable characters. This has not invariably been so, however. Note, for instance the absurd "Dr. Sawbones" of Dickens' fame. On the other hand, what an interesting assembly the gracious, helpful doctors of literature would make were they gathered together! So intimately is the physician concerned with the everyday humdrum life of people in general that almost every author of note has been compelled, perforce, to include him in his works. So we meet the resourceful Dr. Watson, the inseparable companion of Sherlock Holmes; the interesting physicians painted by Chekhov, himself a physician; the kindly doctor of "Rab and his Friends;" the genial old Dr. McClure, sympathetically portrayed in "Beside the Bonnie Briar Bush;" the fascinating "K" of Mrs. Mary Roberts Rhinehart; and, quite recently, F. Brett Young's "Young Physician," and Sinclair Lewis's type of the ordinary physician of any small town as he has painted him in "Main Street." And there are many others, quaint, lovable, Christ-like, tremendously helpful and inspiring, who have graced the pages of literature and honored the medical profession.

But we must leave these fictional doctors, founded, no doubt, in many instances upon living characters of the author's acquaintance to hasten on to the primary object of this essay. It would not be possible to cover in any one paper the complete list of doctors who have grown famous in other fields of action. Names will necessarily be omitted; but enough will be grouped and classified to confirm the statement that many physicians have made good aside from their success as medical practitioners. These famous medical men naturally group themselves into three distinct classes, namely, famous literary doctors, those who have made their mark in science and the arts, and those who became prominent as politicians and statesmen.

I. THE PHYSICIAN IN BELLES-LETTRES

Someone has said: "Writing fiction or poetry is an emotion to which physicians are more sus-

ceptible than any other profession." Be this as it may, it undoubtedly is true that as poets and novelists, physicians are a success. Doubtless it is the training of the doctor in constant close contact with every phase of life and all the shades of human nature through the entire gamut of emotions that has enabled him to succeed so well as an author.

Writes Cuming Walters: "It would be a matter of considerable difficulty to make a complete list of literary doctors. They are no small band so far as numbers go, and their influence in the world of books has been very considerable and distinguished. We owe to them many great works of enduring repute, of value to the student, of perpetual entertainment to the general reader. When, too, we consider the willingness and the zeal with which the writing members of the medical profession have imparted their knowledge, we are led to believe that they accepted as their motto the noble utterance of Sir Thomas Browne, the chief of literary doctors: 'To be reserved and caittiff in goodness is the sordidest piece of covetousness and more contemptible than pecuniary avarice. To this (as calling myself a Scholar) I am obliged by the duty of my condition: I make not, therefore, my head a grave, but a treasure of knowledge; I intend no monopoly, but a community, in learning; I study not for my own sake only, but for theirs that study not for themselves. I envy no man that knows more than myself, but pity them that know less. I instruct no man as an exercise of my knowledge, or with an intent rather to nourish and keep it alive in mine own head than beget and propagate it in his; and in the midst of all my endeavors there is but one thought that dejects me: that my acquired parts must perish with myself, nor can be legacied among my honored friends.'"

Let us consider briefly these medical literatti as classified as poets, humorists, essayists and philosophers, and writers of fiction.

Medical Poets. Were I to speak of "Dr." Samuel Coleridge, "Dr." John Keats, "Dr." Goethe, and "Dr." Schiller, I have not the slightest doubt that most of you would be astonished to hear these famous poets so designated. Yet, medical men they were, each and every one of them. Goethe, it is true, studied medicine purely with a view to the extension of his knowledge, and not with any more practical or material object. The same is true of Henrick Ibsen, the

great dramatic poet of Scandinavia, who, while not exactly a doctor, came very close to being one, inasmuch as he took the course in medicine at the University of Kristiana and left only a few weeks before receiving his degree. Throughout his course of medical studies his heart was set upon the drama, and it was the success of some of his early work which came to him just before his graduation in medicine that determined his career as a dramatist rather than as a physician. That he did not make a mistake in his decision at this time is evidenced by "The Doll's House," "The Ghosts," "The Pillars of Society," and "Peer Gynt."

With Schiller it was different. The man who wrote "Wallenstein," "Maria Stuart," and "Wilhelm Tell" was a doctor. Furthermore, he was considered a skilled medical officer to a grenadier regiment in Stuttgart. But the yearning for literature ran riot in his veins, and as he strolled about the barracks his mind would be busy with the composition of a sonnet or the plot of a drama, when in fairness to his position, he should have been thinking of his soldier patients in the barracks hospital. So thought his superiors, who admonished him to quit his writing of verse. The chagrined young doctor fled into one of the Austrian forests, dropped his professional title, and became, next to Goethe, the best dramatic poet Germany has produced.

The sixteenth and seventeenth centuries evolved a number of medical poets who achieved a more or less lasting fame. It was Dean Swift who pronounced Sir John Blackmore, the most remarkable of all the compounds of physician-poet, as "England's Arch-Poet;" and Johnson did his utmost to rehabilitate Blackmore's damaged reputation after the vicious attacks that were made upon him by his enemies. For the truth about this man we must seek the mean between the extremes of Johnson's praise and the "malignity of contemporary wits," as Boswell termed it. Blackmore was a man of uncommon character and a prodigious worker. His first production, a heroic poem in ten books on Prince Arthur, passed rapidly through several editions, and two extra books were added to it. This won him fame. The king knighted him and gave him other advances; but the critics furiously assailed him, and his name became a by-word for all that was heavy and ridiculous in poetry. Notwithstanding this, he persevered and published suc-

cessively a "paraphrase on the Book of Job," a "Satire on Wit," "Elijah"—an epic poem in ten books, "Creation, a Philosophical Poem," "Advice to Poets How to Celebrate the Duke of Marlborough," "The Nature of Man," "Redemption," "A New Version of the Psalms," "Alfred"—an epic in twelve books, "A History of the Conspiracies Against King William," and a host of others which his perverted reason or fantastic fancy suggested. Of all that he wrote, however, a few passages from his "Arthur" and "Creation" are alone remembered, and but for Johnson's good-natured attempt to save him from oblivion his name would have lived only in the satires of his remorseless critics.

Arthur Johnston was physician to King Charles the First. In the same year that he graduated from the University of Padua (1610) he was "laureated poet at Paris, and that most deservedly," as Sir Thomas Urquhart records. He was then only twenty-three years of age, and the prospect of many years being before him, he indulged in extensive travel, visiting in turn most of the principal seats of learning. He then settled in France, and became equally well-known as a physician and as a writer of excellent Latin verse. In 1635, he published an elegy on James I, and followed this up by dedicating a Latin rendering of the "Song of Solomon" to King Charles, which won him the patronage of the English royal family. Other specimens of his rare culture and poetical powers followed, and he achieved European reputation. His Latin translation of the Psalms is held to be unexcelled by any other unless it be Buchanan's, and the fact that his translation is still in use sufficiently attests its excellence and value. He died suddenly in 1641, while on a visit to Oxford, and in the centuries which have succeeded he has not been displaced from the front rank of refined and deeply versed Latin scholars and poets.

At the age of twenty, Mark Akenside visited Leyden, and three years later he became, as Dr. Johnson writes, "a doctor of physick, having, according to the custom of the Dutch Universities, published a thesis." In the same year he produced "The Pleasures of the Imagination," his greatest work. This was followed by a collection of odes; but he still sought a livelihood as a physician with, however, but little success. For Dr. Johnson records that "Akenside was known as a poet better than as a doctor, and would have been reduced to great exigencies, but for the

generosity of an ardent friend. Thus supported, he gradually advanced in medical reputation, but never attained any great extent of practice, or eminence of popularity."

John Phillips, who may be classed among the physicians though it is doubtful whether he practiced, enjoyed a better fate as a man of letters than did either Akenside or Garth. He sprang into sudden popularity by the publication of a whimsical and clever medley, "The Silver Shilling," which was followed by an official commemoration of the victory of Blenheim. His greatest achievement was a poem in two books on "Cider," and he was meditating an epic on "The Last Day" when he died at the early age of 33. One curious fact about his writings, scanty as they are, is worthy of mention. He sounded the praises of tobacco in every poem he wrote except that on Blenheim. Dr. Johnson did not rate Phillips very highly, stating that what study could confer he obtained, but that "natural deficiency can not be supplied."

George Crabbs did not long continue in the practice of medicine, abandoning it at an early age for the ministry, although he frequently resorted to the writing of poetry. It may be that his youthful experience was largely responsible for his scathing denunciation of "The Quack" who believed wholly in the potency of "oxymel of squills," and also of "The Parish Doctor" who "first insults the victim whom he kills." The poet was a severe castigator, and was "never less forbearing with the lash than when these impostors of his day were under his hand for flagellation." He was always a favorite with the critics.

(To be continued)

THE PLACE OF THE PARS INTERMEDIA IN THE HUMAN PITUITARY APPARATUS

Collation of the observations and views of German writers up to the present time leads the author to assert that the pars intermedia of the human pituitary glands is a rudimentary organ characterized by small size, variableness and shrinkage in early old age. Furthermore, it is improbable that this picture represents an organ important to life. Hypotheses in conformity with conceptions of hyperfunction, hypofunction, or dysfunction of the human pars intermedia conflict with the anatomical conditions. The anatomical difference between the human pituitary gland (and perhaps that of the anthropoid ape) and those of other animals must be given careful consideration in the evaluation of animal experiments and of the action of extracts. —A. Plaut (*Klinische Wochenschrift*, July 29, 1922).

Correspondence

"THE STATUS OF INSULIN"

Chicago, May 5, 1923.

To the Editor:

There are two omissions in a special article, "The Status of Insulin" appearing in the Journ. A. M. A., April 28, 1923, the one referring to the past, the other to the future, that might fitly be corrected.

It is stated that "Barron had called attention to the fact that degenerative changes occur in the acini of the pancreas following ligation of the ducts, etc." and that Banting "while reading an article by Barron conceived the idea of preparing an active extract of the islet tissue." This is neither just to Banting, inasmuch as it presupposes a lack of familiarity on his part with the literature of a subject in which he has achieved so signal a success, nor is it fair to the large group of workers who discovered the fact long ago that ligation of the pancreatic ducts causes after a time degeneration of the acini while leaving the island tissue essentially intact. This fact has been in the textbooks for years. Biedl, as one example, in his first edition of "Innere Sekretion," 1910, on page 398, fully describes the experiments made by a number of investigators between 1901 and 1905 to bring about a "physiologic separation of the two pancreas tissues" by the ligation method. Experiments had been made to prepare an extract from Langerhans' tissue so isolated, but failed on account of the undeveloped chemical technique of that day.

The other important omission, reviewing as the article does, the clinical results obtained in many diabetes cases over a considerable period, is its failure to elaborate more fully upon after-results. It accurately describes how to "take hold" with Insulin, but it does not tell how to "let go" nor, accurately, just what does happen in different groups of cases when you do let go. In other words, have we a substitution thereapy pure and simple that is effective only so long as we continue to substitute, or are we actually securing "pancreatic rest" by a method more easy and less irksome to administer than starvation, oatmeal, etc., with resulting increase of functional capacity of the pancreas, possibly tissue-regeneration? All these problems are, of course, in process of study and will in time be solved. In

the meantime it is important that false expectations should not be raised in the minds of the profession who largely secure their information from just such special articles, and above all of the laity who secure their information from the daily papers. The Toronto workers deserve the greatest credit for the conservatism of all their utterances and for the emphasis they have throughout placed upon the fact that the new method is not a cure. A resumé such as you have published, I humbly submit, should bring this point out a little more emphatically.

It is interesting, in the face of this immensely valuable discovery, to follow the workings of the human intellect and the methods of advance that have answered a riddle the solution of which has been floating around in the minds of men for a generation. No need for inductive reasoning anywhere, no flash of inspiration, pure deduction throughout by analogy and sequence from an ever-broadening basis of established facts; observation and record of phenomena, natural and experimental, pedantic perfection of laboratory methods, pin-point concentration upon detail. This has been called genius. Mehring and Minkowski, in 1899, just to see what might happen and with no expressed underlying idea, removed the pancreas from a dog and discover that this produces the diabetic picture. Then comes a flood of work extending up to the present day elaborating upon this discovery with innumerable attempts to work out a self-evident substitution thereapy by supplying every variety of pancreas extract and pancreas graft; here and there a gleam of success in animals, but nothing practical in humans. Later, the discovery on the part of histologists of the significance of the Islands of Langerhans and the method, referred to above, of isolating them. Finally, some twenty odd years later, with the perfection of chemical technique, the utilization of all these facts for the preparation of a potent extract. The climax, then, a wonderful piece of collective investigation by the biologist, the physiological chemist and the clinician.

This raises the flag on the completed structure and the world, as is proper, takes off its hat and bursts into acclaim. The planners and builders of the structure, the innumerable workers of many nations who collected the material and put it in its place should not be forgotten.

ALFRED C. CROFTAN.

25 E. Washington Street.

Society Proceedings

REPORT OF THE HOUSE OF DELEGATES OF THE ILLINOIS STATE MEDICAL SOCIETY

OFFICIAL MINUTES

DECATUR

First Session, Tuesday, May 15, 1923

The first session of the House of Delegates of the Illinois State Medical Society was called to order by the President, E. P. Sloan, Bloomington, in the Ballroom of the Orlando Hotel, Decatur, Illinois, on Tuesday, May 15, 1923, at 8:10 P. M.

The first order of business was the report of the Credentials Committee by the Secretary, W. D. Chapman, Silvis. It was moved that the report be accepted. Seconded and carried.

The Chair announced that the report as read constituted the House of Delegates for the Illinois State Medical Society for the 1923 session.

The next order of business was the roll call. The Secretary read the roll and announced that a quorum was present.

The next order of business was the reading of the minutes of the previous meeting. The Secretary reported that the minutes had been published in the July, 1922, issue of the ILLINOIS MEDICAL JOURNAL. It was moved that the minutes as published in the July, 1922, issue of the Journal be accepted as the official minutes of the 1922 meeting. Seconded and carried.

The next order of business was the report of the Secretary.

REPORT OF THE SECRETARY

Gentlemen of the "House of Delegates": Your Secretary begs to report the collection of the following sums, from all sources, for the balance of the year 1922 and for the first four months of 1923. The first figure read being for the May-December period of 1922, and the second for the first four months of the current year:

	1922	1923
Adams	\$ 260.00	\$ 85.00
Alexander .....	.....	95.00
Bond .....	.....	65.00
Boone	5.00	.....
Brown .....	.....	60.00
Bureau	25.00	115.00
Carroll	100.00	.....
Cass	46.00	.....
Champaign	12.00	275.00
Christian	182.00	.....
Clark	35.00	50.00
Clay	40.00	20.00
Clinton	25.00	.....

Coles-Cumb. ....	.....	205.00
Cook	1,875.00	16,000.00
Crawford	95.00	25.00
DeKalb	90.00	105.00
DeWitt	60.00	15.00
Douglas	90.00	100.00
Edgar .....	.....	105.00
Effingham	7.15	.....
Fayette	25.00	20.00
Ford	5.00	75.00
Franklin	48.00	138.00
Fulton	210.00	135.00
Gallatin	10.00	10.00
Greene	142.50	.....
Grundy	10.00	55.00
Hamilton	28.00	25.00
Hancock	43.50	90.00
Hardin .....	.....	15.00
Henderson .....	.....	55.00
Henry	200.00	18.00
Iroquois	20.00	45.00
Jackson .....	.....	150.00
Jasper	45.50	63.00
Jefferson	5.00	80.00
Jersey	40.00	.....
JoDavies	28.00	.....
Johnson	40.00	15.00
Kane	76.00	450.00
Kankakee	48.50	.....
Kendall .....	.....	30.00
Knox	43.00	160.00
Lake	39.00	145.00
LaSalle	118.00	115.00
Lee	30.00	5.00
Livingston	199.00	.....
Logan	10.00	.....

	1922	1923
McDonough	\$ 75.00	\$ 123.00
McHenry	5.00	100.00
McLean	130.00	280.00
Macon .....	.....	395.00
MacCoupin	25.00	30.00
Madison .....	.....	445.00
Marion	70.00	104.50
Mason	55.00	85.00
Massac	58.00	.....
Menard	45.00	.....
Mercer	60.00	80.00
Monroe	50.00	55.00
Montgomery	100.00	70.00
Morgan	100.00	10.00
Moultrie	45.00	.....
Ogle	96.00	25.00
Peoria	543.00	10.00
Perry .....	.....	25.00
Piatt .....	.....	65.00
Pike	74.50	.....
Pulaski	32.00	.....
Randolph	117.00	115.00
Richland	5.00	55.00
Rock Island	25.00	271.50
St. Clair	2.50	.....
Saline	15.00	.....
Sangamon	529.00	430.00
Schuyler .....	.....	45.00
Scott	15.00	30.00
Shelby	25.00	85.00
Stark	73.00	5.00
Tazewell	110.00	15.00
Vermilion	41.00	443.00
Warren	125.00	.....
Washington .....	.....	85.00
Wayne	81.00	.....
White .....	.....	5.00
Will	16.00	290.50
Williamson	10.00	175.00
Winnebago	469.34	15.00

Woodford	2.50	85.00
	1922	1923
Subscriptions	\$ 94.00	\$ 161.10
Exhibits	2,150.00	1,050.00
	\$ 9,879.99	\$24,477.60

The figures reported as of May-December, 1922, when added to the several receipts reported to the 1922 House of Delegates by Retiring Secretary Gilmore and covering the first four months of 1922, make the totals for the 1922 fiscal year:

Receipts from County Societies..	\$32,796.74
Subscriptions	173.05
Exhibits	4,037.00
	\$37,006.00
Members in good standing May 15, 1923.....	6,816
Members dropped:	
Death	85
Resigned	11
Removal	96
Non-Payment	212
	404
	6,412
New Members	309
Members Reinstated	119
	6,840

Total Membership 6,840
During the fiscal year 1922, 184 voucher checks were drawn for a total of \$35,184.27 divided as follows: General expense, which includes publishing the Journal, \$24,727.01; Medico-Legal, \$10,047.38; Legislative, \$409.88.

An auditor's report submitted under the date of September 9, 1922, by Fred N. Setterdahl & Company, Public Accountants, of Rock Island, was procured. This report covers the fiscal years 1920 and 1921 and the first four months of 1922, shows a proper balance and accord in the accounts of the several officers and was accepted by the Council of the Society.

The DuPage County Medical Society was reorganized as a component unit, drawing its membership of thirty from the Chicago Medical Society chiefly.

The per capita tax of five dollars has ben adequate for operation under the present plan, with the practice of economy by the Council.

The Secretary invites the attention of the House of Delegates to an increasing popularity of its Journal, the fiscal year 1922 having shown an increase in subscriptions from non-membership sources of 31.8 plus per cent over the fiscal year 1921, and the first four months of 1923 having shown an increase of approximately 103.8 per cent over the like period of 1922.

Respectfully submitted,
Wm. D. Chapman, Secretary.

It was moved that the report of the Secretary be accepted. Seconded and carried.

The next order of business was the report of the Council by C. S. Nelson, Springfield, Chairman.

REPORT OF CHAIRMAN OF THE COUNCIL
To the House of Delegates, Illinois State Medical Society:

The Chairman of the Council desires to submit the following brief report:

I have been present and presided over the four meetings held during the past year. Aside from routine business transacted, there has been several important matters before the Council during the past year, some originating outside the Council and some inside. One appeal was made from the Chicago Medical Society to the Council, and the Council sustained the Chicago Medical Society when an appeal has been taken to the House of Delegates, and the Council will feel greatly relieved when the House of Delegates settles this matter according to their best judgment.

A new medical practice act has been under consideration by the Council during the past year, and culminated in framing a new medical practice act, which, I think, is as near a model act as we could expect to have passed, and it is now before the legislature known as House Bill No. 242 and Senate Bill No. 106, and I believe it the duty of every member of the Illinois Medical Society to get behind this bill and push it to a successful finish.

The Council during the past year have inaugurated a somewhat novel feature known as a publicity bureau, for the purpose of disseminating knowledge through the lay press relative to the benefits the medical profession have accomplished for humanity. This publicity is for the purpose of counteracting a similar propaganda by the various cults, and is also used in many business enterprises. We trust the House of Delegates will give this publicity matter some consideration during this session, for it is the belief of the Council that nothing heretofore undertaken will have more beneficial results to the medical profession generally than this publicity bureau.

Your Chairman, in the appointments of committees, endeavored to select those best fitted for the various positions and the work the various committees have so well performed, proves my judgment was not misplaced, and I wish here to publicly thank each and every member of the Council for their harmonious and energetic cooperation.

Respectfully submitted,
C. S. Nelson, Chairman of the Council.

The next order of business was the report of the Treasurer by A. J. Markley, Belvidere.

TREASURER'S REPORT

Report of Dr. A. J. Markley, Treasurer Illinois State Medical Society for year May 12, 1922, to May 12, 1923.

	Med.	Legis-
	lative	
Bal. on hand May 12, 1922	\$13,238.52	\$11,461.78
Rec'd from Sec'y.....	20,020.27	9,853.40
Rec'd from Ill. Med. Journal	11,000.00	
Special Donation		62.65

Total	\$44,258.79	\$21,315.18	\$14,947.98
Vouchers cashed	19,673.45	11,542.73	2,200.35
Bal. May 12, 1923.....	\$24,585.34	\$ 9,772.45	\$12,747.63

The next order of business was the report of the Councilors. Dr. D. B. Penniman, Rockford, reported for the First District as follows:

FIRST COUNCILOR DISTRICT

I have a very short report to make because I am simply filling out an unexpired term. The first matter of business that I had to care for was the writing of letters to the secretaries of the County Societies in my district requesting them to use all their power to raise money for the work of the Publicity Committee. This letter was followed in two weeks by a personal letter to every doctor in the district, sending out about 500 letters.

I had the pleasure of attending the Council meeting and I must say I was very much impressed with the serious way in which the men took care of this important business.

I was asked to investigate the activities of Dr. East in his clinic. We have three clinics for crippled children in our district, one at Rochelle, one at Freeport and one at Rockford. I tried to give this a fair outlook, talking with the men and women of the city who made this report and to the officers in charge of the clinic.

Following that work I tried to obtain the attitude of the senators and representatives in our district in regard to the medical practice bill and to the Shepard-Towner bill. I did not use any particular argument for the bill but tried to get men who were well acquainted with these politicians to use their influence for the medical practice bill. Regarding the Shepard-Towner bill, I feel there is no one who can instruct a mother on prenatal care like her own physician. If I am wrong I have made a mistake (Applause), but I urged against the Shepard-Towner bill.

Dr. E. E. Perisho, Streator, reported for the Second district as follows:

SECOND COUNCILOR DISTRICT

I wish to report that I have visited the following counties of the Second District: Whiteside, Lee, Bureau, La Salle, Livingston and Woodford, and find them all well organized and holding regular meetings.

I have not been able to arrange a meeting with Kendall or Grundy counties. Being very small counties with no large city as a meeting place, it is rather difficult for their members to get together for regular meetings. I have carried on a rather heavy correspondence with the men of these counties trying to get them to arrange a meeting, but as yet I have not succeeded, though I find they are keeping up their organization.

There are only a few doctors scattered over the counties of Marshall and Putnam and they found it so difficult to get together they disbanded two years ago and their members transferred their memberships to the counties closest to them.

As to the Educational Campaign, I have explained its object to all the counties I visited. I have writ-

ten a number of letters to the secretaries as well as to the various members of the district. I also had a number of stock letters printed, some of which I mailed to the doctors themselves and mailed a quantity to each county secretary for him to mail to the doctors of his county, thus covering the entire district.

In regard to the legislative work, I have called on or written to practically all the law-makers of this district, as well as, to have doctors from their towns and my county committeemen to call on them and write them. As result of this work we have the assurance that practically all the law-makers of this district are willing to consider the wishes of the doctors and are willing to be with us in our legislative work.

As a summary of this report I am glad to report that I find the Second District well organized and with practically all of the active physicians members of the county and state organization.

E. E. Perisho, Councilor, Second District.

Dr. S. J. McNeill, Chicago, reported for the Third District as follows:

THIRD COUNCILOR DISTRICT

The Lake County Medical Society meet at Waukegan, North Chicago and Niles Center once a month, alternately. This society is very active in legislative and public health activities, having an active membership of 56 in good standing. Lake County has a guild which comprises all the physicians, dentists and pharmacists who have been active in trying to keep down State Medicine, Christian Science and all other "Cults" that are springing up, and also have accomplished considerable to further the interest of the medical profession in the past year.

DuPage County Medical Society meets at Wheaton once a month. This society has had no organization since April, 1918, but was reorganized November 23d of the past year with a membership of 30 in good standing and has been most interested in legislative and public health affairs. This society is to be commended on the way they have kept in touch with their representatives and senators while at Springfield, so that they might know these representatives and senators had the welfare of the medical profession at heart.

Will County Medical Society is a very interesting and active society, holding scientific meetings each Wednesday in July, August and September at the luncheon hour, with a membership of 52, all in good standing. Every member takes an active part in the program of the meetings, and several members have gone at their own expense to Springfield to make doubly sure that their senators and representatives are carrying out their wishes in matters pertaining to the medical profession. The day-time meetings seem to be responsible for the increased interest of the members in this society.

Kankakee County Medical Society meets at the Kankakee City Physicians Club. It has 40 members

in good standing, meets one a month jointly with the Physicians Club, and the members find this benefits the medical society greatly as they have the Physicians Club library at their disposal. This society has been most active in public health affairs, trying to suppress the so-called "Cults," state medicine, Sheppard-Towner Bill and all those who have displayed an antipathy towards the medical profession.

The Chicago Medical Society has, inclusive of its fifteen branches, 3,640 members in good standing. The main society meets every Wednesday evening on the sixth floor in the Marshall Field Annex Building and has a very large attendance. The program comprises from three to five scientific papers which are read and discussed.

The Branch Societies meet once a month and also have their program of scientific papers treated in the same manner as the parent society program. These branches work in conjunction with the main society and its standing committees. They all have introduced bulletins which are self-sustaining and are a wonderful help.

The membership of branches is as follows:

North Side Branch.....	406
North Shore Branch.....	551
Evanston Branch	172
Northwest Branch	347
West Side Branch.....	368
Aux Plains Branch.....	240
Douglas Park Branch.....	252
Stock Yards Branch.....	140
Engelwood Branch	222
South Side Branch.....	328
South Chicago Branch.....	52
Irving Park Branch.....	140
Calumet Branch	38
Chicago Heights Branch.....	41
Jackson Park Branch.....	374

New members since October, 1922, 170; deaths, 42.

The Council of the Chicago Medical Society is composed of 57 doctors from various branches and 15 doctors are councilors at large and the outgoing president is a councilor at large for three years inclusive.

The Council meets at the Hamilton Club on the second Tuesday evening of every month except July, August and September. The president-elect presides with the secretary at the council meetings.

There are nine standing committees elected by the council, as follows: Membership, Medico-Legal, Ethical Relations, Grievance, Milk Commission, Hospital Organization, Physicians' Relief, Public Relations, and Legislative. All the official business of the Chicago Medical Society is transacted at these meetings.

Too much credit cannot be given to Drs. J. C. Krafft and C. E. Humiston for the tremendous amount of work and zeal they have evinced during the present legislature in the interest of the Medical

Practice Act and the Sheppard-Towner Bill and all the other so-called "Cults."

In connection with the Chicago Medical Society there has been instituted a Doctors' Information Bureau for the patients' and doctors' convenience, without any additional charge to the doctor, as this courtesy is taken care of through the annual dues, which are \$10 per year. This information bureau in the last year has more than paid its worth to the members of the Chicago Medical Society.

Respectfully submitted,

S. J. McNeill,

Councilor for the Third District.

Dr. R. R. Ferguson, Chicago, also reported for the Third District as follows:

I was appointed by the Chairman of the Council as Chairman of the Committee on Publicity. One year ago the House of Delegates went on record as approving this publicity movement and of a certain amount of publicity getting into the newspapers. To this end the House of Delegates appointed a committee of three. We have been working on a plan for raising money to carry on this program, inasmuch as the State Society does not feel it has sufficient funds to carry out its object. Some seven or eight months ago the state sent out a letter to every member of the Society asking for a subscription of an amount which each man could afford. The result was \$6,000. That does not mean very much when you stop to think that we have 6,000 men. The Council at its next meeting authorized the Committee to send letters to the component county societies. This was done and immediately we had a response of several thousand more dollars. We have kept up this campaign for the last year, so that at the present time we have to report something in the neighborhood of \$9,000. I do not believe the work should be attempted until we have at least \$10,000. We have talked to two or three firms who do this kind of work but we have not settled on one yet. As yet the checks have not been cashed, but we are going to cash them very shortly with the consent of the Council. We are still planning on what kind of publicity we are going to do and you can be sure when it is undertaken it will be undertaken in a business-like way and there will be nothing given out in the way of publicity but that every member of this Society will stand for. I am sure the Committee, Dr. Whalen, Dr. Chapman and myself, can be trusted to give publicity that will satisfy.

Dr. J. S. Nagel, Chicago, Third District, said his report was included in that given by Dr. O'Neill.

Dr. H. M. Camp, Monmouth, reported for the Fourth District as follows:

FOURTH COUNCILOR DISTRICT

The Fourth Councilor District is composed of twelve counties of West Central Illinois, between

the Illinois and the Mississippi rivers. Each of the twelve counties has an organized County Medical Society and each has had, with one exception, regular meetings during the past year. One small county has only seven or eight practitioners residing in it, and as they are scattered over the county, which is long and narrow, it is difficult for them to get together. The membership in these county organizations will compare favorably, we believe, with that of any other district of the state. One County Society, Stark County, has on its membership list every practicing physician residing in the county. Another county has only two physicians not on its membership list.

It has been our privilege during the past year to visit nine out of the twelve county societies, and during the present year we expect to make our record 100 per cent. There are a few societies in the district which have only two or three meetings a year. We believe this a decided disadvantage, and efforts will be made to increase the number of meetings during the present year. It is our opinion that in every county meetings should be held at least monthly. In several counties we have City Society meetings which are attended by the county members and which, in a way, compensate for the fewer county society meetings, as matters pertaining to the county society are considered at these meetings.

The county secretaries in this district are all capable and efficient men. In most instances the secretary has held his position for several years, which of course adds to his efficiency. Three counties have joined forces for one meeting and hold a tri-county meeting in October, the meetings held in one of the counties each year by rotation—the Knox-Warren-Henry Medical Society. This plan was adopted three years ago and has proven most satisfactory. The last meeting held at Monmouth was attended by over one hundred fifty physicians.

The next meeting of this society will be held at Kewanee and we are assured that everyone is cordially invited and that the meeting will be an enjoyable one. In our visits over the district we have heard many favorable comments on the new form of the *ILLINOIS MEDICAL JOURNAL*, with the editorials first and scientific articles last. We believe this a decided advantage over the old form.

One small county in the Fourth District with only a few physicians has adopted a popular method in conducting their meetings. These are held monthly at the home of one of the members, an evening meeting with a dinner followed by papers and discussion. We would recommend this system to small counties where it is difficult to get the members together.

In closing our report we wish to mention the debt of gratitude the State Medical Society owes to the untiring efforts of three men. First, our secretary, who is always working for the best interests of the society and is frequently on the job twenty-four hours of the day working out some system for the benefit of the society; second, our

legislative chairman, who is a most capable and tactful member, devoting much time, thought and ingenuity in carrying out the duties required of him; and third, our editor. His editorials have been most forceful and always to the point. He has succeeded in making the *ILLINOIS MEDICAL JOURNAL* the best Journal of any State Society in the country.

H. M. Camp, Councilor, Fourth District.

Dr. C. S. Nelson, Springfield, reported for the Fifth District as follows:

FIFTH COUNCILOR DISTRICT

I did not make out a formal report for the reason that the report of the Councilor of the Fifth District from year to year is somewhat a repetition. We have but a very small proportion of the physicians in the district who are not already members of their respective county societies. Of course, some of the members become careless in retaining their membership. In going about the county I occasionally pick up an ex-member of our society, but he is brought back into the fold without difficulty. It is usually negligence in the payment of dues that is responsible for the occasional member who drops out. I think the Fifth District is in very good condition, but the activity of the various societies in it could be very much improved upon.

Dr. H. P. Beirne, Quincy, reported for the Sixth District as follows:

SIXTH COUNCILOR DISTRICT

We have a well organized society in every county except Calhoun. We are all lined up against the Sheppard-Towner bill. Our men are getting along fine.

Dr. L. O. Frech, Decatur, reported for the Seventh District as follows:

SEVENTH COUNCILOR DISTRICT

Your Councilor of the Seventh District, which comprises the Counties of Macon, Moultrie, Shelby, Fayette, Bond, Marion, Piatt, Clay, Christian, Montgomery, Effingham and Clinton, wishes to report his district in fairly good condition. I say fairly good condition because some of the societies are not functioning as well as they might under the conditions which at present exist, and one or two are not functioning at all.

I have in the past year visited some eight or nine of these societies, with the hope of stimulating a renewed interest in things medical, and more particularly in regard to those measures which come under the head of Medical Legislation. It has been pointed out to the members present at these various society meetings wherein it is to their vital concern to take an active interest in their society proceedings and, if nothing more, to at least attend the meetings as it is only in this close organization that the freedom of the medical men can be maintained.

While I believe that the Seventh District is in better shape than one year ago, with apology to my predecessor, still I realize that conditions are

not such that we, the State Society, can get the co-operation that we should have.

I find some of the Societies do not meet at all; some meet only twice a year, others every three months and the more progressive ones once each month or more often. I feel, personally, that three months should be the maximum length of time elapsing between meetings of any county organization, and if the members cannot meet at least every three months, there is no interest in said organization.

I find some of the County Secretaries very lax in answering correspondence, this proving to me that they are also lax in running their County Society and in stimulating interest. Many of the societies give us absolutely no co-operation in Medico-Legislative matters, thus hindering the passage of our own bills and removing the barrier for the passage of bills detrimental to us.

I have great hopes for the Seventh District. I believe in the course of time that we can get lined up and run efficiently. It will take a great deal of valuable time and hard work, but if results can be secured it is well worth the Councilor's effort.

I look forward to and sincerely hope that the coming year will be one of constructive growth and interest, not only in the Seventh District but in all of them, and that at the 1924 meeting we can point with pride to our County Societies and say, "We told you so."

Respectfully submitted,

L. Frech, Councilor.

Dr. C. E. Price, Robinson, reported for the Eighth District as follows:

EIGHTH COUNCILOR DISTRICT

This concludes my seventh year as Councilor of this District. Most of the work has been very pleasant. The Eighth District is made up of a very congenial and professional group of physicians. I believe it is true all over the state, that Councilors have more trouble in getting co-operation regarding legislative matters than any one thing. This, I believe, comes about from the fact that we have had so many rebuffs and accomplished so little in this line for the effort put forth and that many are becoming discouraged and feel like letting "the hide go with the tail." This then leads up to the question of the advisability of trying other tactics.

Last year in the House of Delegates it was thrust upon the Council to establish an educational system in the lay press throughout the state trying to create a public sentiment and establishing a feeling of safety among the people, that scientific medicine has and will establish more benefits to humanity through the prevention of disease and the preservation of life. We all must acknowledge that public sentiment rules the world. Then if public sentiment created in an educational way will fill our legislative halls we will not need to bother with Springfield every time the legislature is in session.

I am very sorry to know that some of the physi-

cians as late as March had not yet learned that the money that was trying to be raised to carry on this Educational Campaign was not for the legislative fund. This now goes to show that men do not read the editorial pages of the ILLINOIS MEDICAL JOURNAL. This matter came up in the Council and the editor was asked to put the editorials in the front of the Journal instead of following the scientific articles in the hope that it would cause more to read the editorials, which enable all to keep up with the doings of the Council, the Legislative Committee, as well as all other committees, and in fact everything for the good of the profession. If I could impress upon the delegates here tonight the good they would get from reading and studying the editorials in the ILLINOIS MEDICAL JOURNAL I feel I would have accomplished something worthwhile.

I am sorry to say that my District has not responded to the appeal for raising money toward this Educational Campaign as well as I should have liked. I was unable to go over the District and make personal appeals and doctors do not pay any more attention to letters that hit their pocketbooks than other people do. In other words, "There is as much human nature in doctors as there is in other fellers."

Doctors must be educated themselves to the point that the practice of medicine involves some civic and business elements and not all science, and when they are educated it will be much easier to educate the public. From the standpoint of a scientific organization the Eighth Councilor District is in the best condition it has ever been. Richland County now has a good and well organized County Society making the District 100 per cent, all having regular meetings except Edgar County.

As far as has been reported, Dr. F. D. Lydick of Paris and Dr. H. C. Kerrich of Brocton are the only deaths the last year. Since the first of the year I have not attended any Councilor meeting, but have been in touch with the Legislative Committee and have accomplished some good by both wire and letters.

Respectfully submitted,

C. E. Price.

Dr. W. H. Gilmore, Mt. Vernon, reported for the Ninth District as follows:

NINTH COUNCILOR DISTRICT

I was very sorry that the Chairman of the Council in the official report did not mention the name of our old friend, Dr. C. W. Lillie, who died last August. I think some resolution of regret is due, for on account of his death I am here tonight as representative of the Ninth District.

I think there has never been a pernicious measure passed in Illinois that was supported by the legislators of Egypt. I think Dr. Neal will bear me out, for we have at the present time very few men in the legislature who are not friends of the physicians of Egypt. I have devoted a great deal of time to the senators and representatives and I have gotten

at least one senator to agree not to approve the amendment without my seeing it.

I have tried to raise the necessary money but it has been slow work. It is very hard to do it in Egypt with twenty-three societies and only one man. Until the road situation is improved no one man is going to see all the counties in one year. Taking it all in all the Ninth District is in good condition.

Dr. C. S. Nelson, Springfield, here offered his apology for not mentioning the death of Dr. Lillie in the report of the Council.

It was moved that the reports of the Chairman of the Council, the Treasurer and the Councilors be accepted. Seconded and carried.

The next order of business was the report of the Editor by Dr. C. J. Whalen, Chicago.

REPORT OF THE EDITOR OF THE ILLINOIS MEDICAL JOURNAL

Experience as editor of the ILLINOIS MEDICAL JOURNAL would seem to justify the comment that the immediate future of the medical profession is an object of optimism and of vigilance on the part of the fraternity.

Of optimism, because the profession everywhere is awakening to the knowledge that organization and alertness are poignantly necessary for the protection of the public welfare and national safety, from inroads against true Americanism and skilled medical care.

Of vigilance, because,—even at this writing,—the daily life and the most vital exigencies of medical practice and of national health, are honeycombed by undermining schemes of ignorance, charlatanism and selfish malice.

Upon the medical profession has fallen throughout history the duty of serving as sentries for the public weal. Consequently, and in due sequence, upon the mouthpieces of the medical profession—the reputable medical journals—there devolves the duty of spreading broadcast accurate news of all verified occasion for congratulation or for alarm. Feeling the incumbencies of its mission and the demands of its conscience, THE ILLINOIS MEDICAL JOURNAL has striven—with what success only the future can tell—to make plain to its readers the dividing line between false reforms that kill, and real progress that upbuilds the glory and good works of the science of medicine.

Because of this the ILLINOIS MEDICAL JOURNAL stands firmly against:

1. Lay Dictation of Medical Practice, whether by statute or insidious financial "endowment" or "foundation" support.
2. State Medicine.
3. The false promise of "Federal Aid" with its implications of "gifts" from a source that has nothing of its own to give.
4. The Overtrained and Usurping Nurse, em-

bodily the truth of the danger of a "little knowledge."

5. Compulsory Health Insurance.
6. Workman's Compensation.
7. Free Hospitalization and the Maintenance of Indiscriminate Free Clinics.
8. Adoption of Russian ideas in American homes where these ideas appertain to sex license and moral debacles.

9. The Sheppard-Towner Maternity Act and all other catpaws for state subsidies which purport to do exactly what they do not.

The ILLINOIS MEDICAL JOURNAL stands equally in favor of:

1. A judicious, skilled campaign of lay education that will bring the public back into close touch and genuine appreciation of the science of medicine. This is one of the day's fundamental tasks for the thinking physician.
2. A continuance of the splendid co-operation among the county societies that has helped the ILLINOIS MEDICAL JOURNAL to wage a good fight against pernicious political influences.
3. Extended organization among physicians until the doctor shall have as much legislative influence as the plumbers' and freight handlers' unions.
4. Faith in the future of medicine and the rank and file who carry on.
5. Adequate pay for adequate service.
6. America for American ideals of cleanliness, wholesomeness, freedom and democracy.
7. A fitting commemoration of the approaching seventy-fifth anniversary of the State society. This diamond jubilee will arrive in 1925.
8. The invasion of public affairs, especially political fields, by members of the medical profession.
9. Loyalty to the ideal that have advanced medicine to the front of progressive sciences.

As a justification for these tenets it may be said that:

1. The ILLINOIS MEDICAL JOURNAL continues to be the largest of the state journals published in the United States.
2. During the past year there were printed 100,000 copies of the Journal.
3. The size of the Journal was uniformly 128 pages.
4. Throughout the year the average monthly issue of the Journal was 8,000 copies.
5. The ILLINOIS MEDICAL JOURNAL has become a popular medium for the publication of medical data. Further it is solicited by many of the most prominent medical men in the United States, as a medium for the publication of scientific papers.
6. There is a rapidly increasing international demand for the ILLINOIS MEDICAL JOURNAL, both by subscription and individual copies.

Advertising conditions continue to suffer from intermittent chills and fever of panic and confidence. Recently normal conditions appear to be returning. In January the editor inaugurated a drive for new advertisers. Since January, 1923, \$4,145.00 in new

contracts has been secured. Many more new contracts have been promised.

Labor terms show no deflection from the peaks of the war period. Print paper is a trivial fraction less. Other market conditions veer unnoticeably for the better. There is practically only a small margin between the expense of getting out the *Journal* now and what it was during the days of war inflation.

As commented on in the last annual report, the *ILLINOIS MEDICAL JOURNAL* suffered the same advertising slump felt generally by all periodicals, both lay and medical.

Enforced wholesale cancellation of contracts for 1922, due to this slump, naturally cut deeply into the revenue for 1923. While it seemed serious at the outset, developments proved encouraging. In the face of all this, however, the advertising income of the *ILLINOIS MEDICAL JOURNAL* for eleven months of this year, holds substantially the same ratio as it did during the entire twelve months of the previously ending year.

This is a remarkably fine showing in comparison with the general advertising situation throughout the United States and there is no doubt that next year will have an even better result. The books show approximately \$3,546.05 of unpaid bills, \$3,000.00 of this amount is collectible; \$550.00 in accounts of doubtful value.

Getting back to first principles, a word or two may not be amiss about the depths of the struggle before us, to safeguard the liberties and rights of the profession. Hindrances to medical integrity and progress persist along the pathways of scientific advance. Radicalism has not burned itself out, rather is it far more rampant. From all over the United States, come bulletins exclaiming against the freak legislation intended to increase lay dictation and lay supervision of the practice of medicine. That such dictation and supervision is a direct inhibition of medical progress and medical efficiency in safeguarding the public health is evidenced by a glance at the legislation itself.

Statutory lay dictation of the practice of medicine gives us many bad examples. These run all the way from the Harrison Narcotic law to the Sheppard-Towner Act, and attempts to railroad nurses into public service as doctors.

A second illustration, showing the attempted statutory suppression of the practice of medicine is to be found in the Antivaccination and Antivivisection bills that passed the legislatures of California, Colorado, Oregon and Washington, or were submitted by petition to a referendum vote of the people. These incidents are but forerunners of others worse to come.

It is a tribute to the Illinois State Medical Society that the *ILLINOIS MEDICAL JOURNAL* was the first medical publication to sound the alarm of an over-centralized government; the dangers of federal aid and state subsidies, and the insidious propaganda that has been going on for years, is now and prob-

ably shall be for the century, and which has for its concealed objective, one of the greatest possible of national calamities: Namely, that it will bring about, in the United States, just as it has done in European countries, notably Germany, through the socialization of medicine, the worst medical service in the world, with a resultant debacle of the public health.

As shown by our president, Dr. E. H. Ochsner, thirty years ago Germany stood at the peak of medical advance. With their miasmatic promises, Compulsory Health Insurance, State Medicine, and other allied socializing agencies, have debauched German medical practice, lowered German medical morale, annihilated German medical initiative, destroyed German medical efficiency and brought about for the suffering German people the poorest of apologies for adequate medical service.

A lighthouse cannot save a drifting ship. The beacon serves only to point out the danger spots where lurk the hidden reefs and shoals. In this respect the *ILLINOIS MEDICAL JOURNAL* begs no grace. From the very first, the reefs and shoals that would wreck the advance of medical science and the public health have been charted plainly in the *Journal's* columns.

In the Editor's report of a year ago, the attention of the Society was directed to the task of commemorating the seventy-fifth anniversary of the Society's founding. Although twelve months have elapsed absolutely nothing has been done. Action should begin immediately as it will require every day of the two years remaining to compile accurately the chronicle. Much work and some money will be needed. These annals should record the especial activities of the Society from its founding in 1850 until the beginning of the year 1923. Included should be the membership lists; the history of the parent and of the district medical societies; publication; police duty and discipline; malpractice defense; a chronological list of officers, biographies of founders, principal officers and members of unusual prominence; meeting places during the progress of the years, and portraits of those who have carried the burden of keeping the Society up to its best capacities. Among the reproductions of historic and important documents should be one of the bill for a charter filed in 1850. None of these points should be overlooked. Many others will come to mind as the task progresses.

Members of the Society will be interested in learning how their organization came into being; who were its founders; what they were like; and what men and women, among the host of members from the inception of the Society until the present day, were most active in cherishing the Society and in forwarding its development. It is inspiring to trace the way in which the membership has increased since 1850; the way in which the standing committees were organized and what they have accomplished; the relation of the Society to progressive health legislation,—such as the founding of the

first state board of health, and the medical legislation enacted, as well as constructive opposition to vicious medical legislation and the attacks on the Society by the quacks and other interests; the Society's survival of attempts at its disruption; and the objectives for which it has striven during its lifetime.

This history and scores of correlative details will be of interest to the profession and of value as a unit in the future history of the State of Illinois, the representative commonwealth of the Mississippi Valley. When the diamond jubilee arrives this record should be ready.

The total amount received for advertising space in the Journal this year is...\$16,586.26
 In accounts unpaid 3,548.45
 Of this, the unpaid accounts, there are
 perfectly good accounts amounting to.. 3,000.00
 Accounts of doubtful value..... 550.00
 Total 20,136.26
 The total amount received for advertising
 last year based on twelve months receipts 18,297.81

This year's receipts are based on eleven months' returns due to the fact that bills were sent out the 10th and the books were closed on the 12th.

Since January, 1923, \$4,145.00 in new contracts have been written. Many new contracts have been promised in the near future. On the whole, the outlook for the coming year from the advertising standpoint is quite encouraging.

It was moved that the report of the Editor be accepted. Seconded and carried.

In regard to the statement in the Editor's report referring to the proper celebration of the seventy-fifth anniversary of the State Society, Dr. R. L. Green, Peoria, said that Dr. O. B. Will of Peoria could furnish nearly all the information Dr. Whalen desired.

Dr. Mather Pfeiffenberger, Alton, moved that a stenographer be supplied if necessary to secure the information.

Dr. L. H. A. Nickerson, Quincy, said most of this information was written up by Dr. Black a few years ago and it would only be necessary to bring it up to date.

Dr. Mather Pfeiffenberger, Alton, withdrew his former motion and made a new one to the effect that the Chair appoint a committee of three to hire a stenographer.

Dr. Robert Hayes, Chicago, moved an amendment to Dr. Pfeiffenberger's motion, that a committee of three be appointed and that the matter be referred to the Council, as it requires the expenditure of money.

Dr. Edward Bowe, Jacksonville, said that the work of gathering information such as Dr. Whalen wished was done by the University of

Illinois and it was his idea that if this work was taken up, the Society should confer with the Department of History at the University of Illinois.

Dr. C. J. Whalen said he had not gone into the method of procedure. Dr. Bowe's suggestion appealed to him. He believed that Dr. Pfeiffenberger's and Dr. Hayes' suggestions to appoint a committee were excellent. If some one is specifically charged with the responsibility of getting up this history it will be done.

Dr. Pfeiffenberger's motion to appoint a committee of three to hire a stenographer was seconded.

Dr. Pfeiffenberger accepted the amendment offered by Dr. Hayes to refer the matter to the Council. The motion as amended was seconded and carried.

Under unfinished business the first thing was the report of the Committee on Medical Legislation made by Dr. John R. Neal, Springfield, as follows:

MEDICAL LEGISLATION

I have made no written report for the very good reason that I am quite unable to tell something that is pending that has not happened yet. Just at the present time if this report could have been delayed two weeks we might be able to tell you something that has happened. You all know there are certain bills in the legislature in which we are interested. When it is recalled that there are 1,218 bills that have been introduced up to May 12th and only 31 of them have become laws, you can quite readily understand that in the next sixteen or eighteen working days of the legislature there are hundreds of bills which will get no consideration at all. It is not to be supposed that all the important bills will be passed and the unimportant ones left on the table. Today has been devoted to a political fight in the legislature. You are all familiar with the program that was laid out early in the year regarding the bill in which we are interested. Dr. Humiston, aided by a very capable lawyer, drew up a bill which was conceded to be as good as any bill along medical lines that has ever been drawn and it would have been practically ideal were we able to get it through in the form in which it was written. Unfortunately, the legislature is entirely too busy to give such matters of paramount importance the attention they deserve. They try to analyze such a bill in an afternoon in committee when it has taken months or even years to produce it. Naturally a well-meaning committee will oftentimes ignorantly strike out the very things that are necessary. We thought by introducing the bills as independent bills, one in the House and one in the Senate, we might save the bill as it was written. Accordingly, one bill was introduced into the House by Smejkal of Chicago and the other in the Senate

by Carlson. It drifted along for weeks without being read in the House. We are trying to get the bill through in its original form, but unfortunately this is not possible. Both bills have been laid on the table. That is not as serious as it sounds. In the Senate it is coming up as a Committee bill. The Legislative Committee assisted by your Secretary agreed to that in an impromptu conference on the floor of the Senate. We decided that inasmuch as the bill was to be changed it was far better to release Senator Carlson and let the bill come out as a Committee bill. However, the bill in the Senate is in very good shape. While it is true that they have lowered the requirements of the cults to three years, nevertheless they have added the requirement that these non-medical healers must show evidence of a high school course or its equivalent, not necessarily as a prerequisite to his professional course. Therefore, the bill in that particular is somewhat weakened. In one or two other portions of the bill we would have very much preferred to have it the way it was originally. If the legislators and well-meaning men would take time to analyze these original bills would be safeguarded. The conference today showed that the bill in the Senate would be very acceptable. We are trying to have some of the remaining objectionable features removed from the bill in the House. We are loathe to see the proposed bill come up in the House in which there is a provision for renewal of physicians' licenses at \$5.00 per year. That may yet be put in. While I do not mean to insinuate that money is being spent in the legislator, I do mean to say that the cults are so well organized that they have a continual lobby at Springfield and these legislators do not have a moment to themselves at home. One senator said that in his district only 30 per cent of the medical men had voted during the election that sent him to the legislature, and he added, "It is not in keeping with good common sense to think that I should support the doctors when they do not support me at election." We did not believe that your committee at Springfield was in position to attempt to control the vote of the legislators. It is very unwise of us to use coercion or compulsion. One medical society wrote in to its senator, "We demand that you vote against the Sheppard-Towner bill"; another society wrote in, "This is too important a bill to be in the hands of political figureheads."

Out of the bills there are ninety pertaining to medical problems. If you do not appear before the Committee and show what are the objectionable features in these bills they will go through because there is no opposition. There was one bill in regard to chiroprody in which they included a large number of subjects to be required, and then quickly changed it in the next sentence by saying applicants were only to be examined in these subjects in so far as they related to Chiroprody. That bill was not opposed. That bill passed the Senate and is now pending in the House. After reading the bill you would wonder why thinking men in the Senate would let

it go through, but these bills go through if there is not some one there to stop them.

There is another difficulty, that is, to get in communication with the proponents of the bill to let them know that we would oppose it. A few weeks ago there was a Chiroprodist's bill in which they wanted to raise their requirements to four years high school and two years professional school in order to keep out certain low-grade fellows who were taking chiroprody, but in reality they did not mean to teach or practice the subjects named in the bill.

There are several bills in for non-medical boards. One bill proposed to have five non-medical men as examiners in all branches for non-medical licenses. When it was pointed out that the examinations in anatomy, physiology and pathology were the same for medical men, the proponent of the bill could see no reason why a non-medical man should not give the examination. When it was shown that you could not ever get non-medical men to agree inasmuch as if the board should consist of two osteopaths, two chiropractors and one mechanotherapist, along would come a member of another cult and say that his branch was not getting a square deal. Ninety per cent of the cults would rather have a medical board.

From our standpoint the bills we have been particularly interested in are three, the Sheppard-Towner, the Medical Practice Act, and the Medical License bill. The Sheppard-Towner act may go through the Senate. It is on its third reading and it is being championed by Senator Barr. I am reliably informed that he has 23 votes and if he gets 3 more it will pass the Senate. I am also informed that the bill will have practically no chance in the House; in other words, the House is not even considering it.

There is to be another conference tomorrow morning on the Medical Practice Act. I will bring back more news tomorrow. We shall get the information to you just as soon as it is available. It is not to be expected that your legislators, senators or representatives will be outspoken regarding measures which the greatest majority know nothing about. I think there was one important statement made one afternoon at a private conference that we held at the Sangamo Club at which we had a number of legislators meeting with the medical men explaining the Medical Practice Act. When one of these 35 gentlemen asked about the Sheppard-Towner bill Dr. Humiston in a very few words told him what the bill meant and each one of the legislators gave him very hearty applause. If the House committee fails to pass the bill up I believe it is that one statement that brought it about. It seemed to strike home at a very vital moment.

House Bill No. 386 is one that the druggists, dentists and doctors are interested in and it is an amendment to the civil administrative code relative to the method of appointing examining boards and the power of director over them. This is undoubt-

edly a good bill and one that should have every consideration but unfortunately there has been some movement against it. There is a vote promised on it in committee the first of the week.

I want to thank the Council at this time and the officers of the Society as well as those in the different county societies who have cooperated with me. We have instituted one new idea, that of getting out a bulletin every week or ten days telling of what has been done. We have a mailing list of between 250 and 300. By means of this bulletin we can keep in contact with the legislative committees of other states. Without the cooperation I have had from the Council and the most intimate contact with Dr. Nelson, Dr. Humiston, Mr. Kelly and Dr. L. C. Nelson who has had this work for twenty or twenty-five years in Springfield, the results we have obtained would not have been possible.

The next order of business was the report of the Committee on Public Policy by the Chairman, Dr. Emmett Keating, Chicago, as follows:

PUBLIC POLICY

I was unable to find very much of a precedent to go by. About the only conclusion I could reach was that the Public Policy Committee was a difficult committee to work. It was easy to make fool mistakes, was difficult to do things in the right way. It happened that coincident with my chairmanship of this Committee I am secretary of the Physicians Fellowship Club. It occurred to me that perhaps by persistent hard work in that club something might be done for the public good. This organization discusses nothing but economic subjects. We have a membership of something like 100 physicians. We have sent out weekly since last fall something like 530 post-cards and letters announcing the programs of the weekly meetings. We have discussed economic problems and have not tried to settle any of them. Our sole object has been one of education. We know that if the laity is to be educated properly by the doctor the first thing is to have a doctor who is educated. That has been our policy. Attempts have been made and have been successful in one or two instances in establishing Fellowship Clubs outside of Chicago. At one of the hearings in Springfield the Club from Peoria sent a telegram asking that the House and Senate vote against the Sheppard-Towner bill.

Another thing that was done at the suggestion of one of the members of the Legislative Committee was that we take up these problems with the druggist and the dentist. At a dinner given by these three organizations in Chicago we discussed House Bill No. 386, the Sheppard-Towner Bill and the Medical Practice Act.

The dinner was given at the Morrison Hotel, Chicago, and was attended by about a thousand people. Several of the state legislators were in attendance and addressed the meeting.

Doctor Humiston was the speaker for the medical professor, Doctor Dittmar spoke for the dentists

and Mr. Antonow, President of the Illinois Retail Druggists Association, spoke for the druggists.

A few weeks ago there was founded by the wives of some of the members of the Fellowship Club, an auxiliary club whose aims are to work for the interest and welfare of the physicians and the public.

I have nothing further to report, except that we expect to go on with this work.

The next order of business was the report of the Medico-Legal Committee by Dr. Bruce King, as follows:

MEDICO-LEGAL

Gentlemen: In addition to our annual report we wish to comment a little on the past and make a few suggestions. First, during the past ten years there has been a gradual increase in the number of suits for alleged malpractice; during that time the increase has been from about thirty to one hundred and one at the present time on our books. Second, the cost of defense has increased also, but not in proportion to the increase of number of suits brought; if it had we would now be paying into the medico-legal fund two dollars instead of one. Third, the reason we have been able to keep costs down as much as we have is that we pay no judgments and make no settlements. We recommend to everyone to carry a policy of insurance to protect himself against such an emergency. Then when one is sued who has such a policy, we aid them in every way possible, such as conferences with attorneys, interviewing witnesses and making suggestions as to the proper conduct of the case. In this way our own expense is cut down and also that of the carrier, with a far less likelihood of a verdict against the doctor.

Since this policy has been pursued the committee has but one criticism and we are as yet unable to see the justification for that criticism.

Suggestions:

First: Keep accurate records, they are very valuable in court.

Second: In those instances where a patient does not follow directions, a statement to this effect should be written by the physician and, if possible, signed by patient and a witness.

Third: Where it seems necessary to sue in order to collect fees wait for two years to elapse, which is the statute of limitations in this state. This holds good except in cases of minors and where the claim is set up of deception on the part of the doctor.

Fourth: The fact that one is carrying malpractice insurance should be considered a private matter and for his own protection. This fact should not be divulged to disinterested parties, in fact a physician should be extremely careful in his remarks regarding his own and other doctors' patients. It cannot be too often emphasized that many malpractice suits are the result of careless and loose talking. Further, a prompt report should be made either to the insurance carrier or your committee or, better

yet, to both, and then keep still and don't talk about the case.

Fifth: It is the attitude of some physicians carrying malpractice insurance to feel that such policies should protect them from publicity and court action. We believe this to be a wrong idea and against the best interests of the profession. The premium paid for your insurance is not only individual but is reflected in any company's business as applied to their experience in the state. So if this position were taken by all physicians and settlements compelled, it would enormously increase the premiums paid by all of us.

Moreover, past experience has proven that it is extremely difficult to successfully prosecute a claim for malpractice and collect damages against a united profession. Thus every case successfully defended renders future suits less liable. We trust that each and everyone of you will bear these suggestions in mind and in that way materially aid your committee in their work.

During the past year there have been started 37 new suits, 25 in Chicago and 12 down state; there has been disposed of 23 cases, 13 in Chicago and 10 down state. Of these disposed of cases 8 were tried and won in court, three were settled out of court, ten were dismissed for one reason or other, one case the plaintiff took a nonsuit during the trial and one case was won in the Appellate Court. During the year there have been also 59 threats which have not as yet resulted in suit. Thirty-two of these were in Chicago and twenty-seven were down state.

The expense during the year has been about nine thousand dollars.

Respectfully submitted,

C. B. King, Chairman.

The next order of business was the report of the Committee on Medical Education. Dr. J. S. Nagel said that the Supreme Court decision wiped out the necessity for this committee and therefore it has not functioned in the last year.

It was moved that the reports of the Committees on Medical Legislation and the Medico-Legal be accepted. Seconded and carried.

Under new business the Secretary read a communication from Dr. Blaine L. Ramsay bearing the date of June 3, 1922, requesting permission to present his case before the House of Delegates. The letter was answered under date of June 9, 1922, and this was followed by some considerable correspondence which the Secretary said he would not read unless some one so desired.

Dr. Edward Bowe, Jacksonville, moved that Dr. Blaine L. Ramsay be given twenty minutes in which to present his case before the House of Delegates. Motion seconded and carried.

It was then moved that the House of Delegates

go into executive session to hear this case. Motion seconded and carried.

The Chair then appointed Drs. Green and Middleton as sergeant-at-arms to see that only delegates remained in the room. The House was then called to order in executive session by the President, E. P. Sloan, and Dr. Ramsay was permitted to remain in the room during the entire session.

Before giving the floor to Dr. Ramsay the Chair announced that no personalities and nothing but statements that were pertinent to the question would be in order.

Dr. Ramsay then stated his case as follows:

I appreciate the privilege of being permitted to speak for twenty minutes. I have been expelled from the Chicago Medical Society on the recommendation of the Ethical Relations Committee for unprofessional conduct in regard to R. W. Chilcott, who was practicing medicine without a license. The charges are true; I have never denied them. I do not deny them to this day. I do say in explanation of this charge that this R. W. Chilcott is an optometrist who called me on the telephone; my girl took the message and asked me to come to the 'phone. I answered the 'phone and he said he had a patient of mine in his office who had had an injury to the eye. He said he thought he had steel in his eye but on examination he found it was only bruised. He asked me if I could see the patient. I was not able to see him—I do not recall why. I, therefore, advised R. W. Chilcott to give this man an eye wash, consisting of sodium baborate and boric acid, and to have the patient see me the next day. I made an appointment accordingly. This man did not show up, but later when charges were preferred against R. W. Chilcott for practicing medicine without a license this charge was brought up. I was taken down before the court of which Judge Rooney was in charge. I stated to the court what I had done. At that time the state witness, Mr. Wright, said that R. W. Chilcott did call somebody while he was in his office. I learned a great deal later that he refuted that and said that R. W. Chilcott did not call anybody, but I am not the judge of that. All I know is that I received this call, made an appointment to see this man the following morning, and advised R. W. Chilcott to give this eye wash and also to apply some hot compresses.

I was brought before the Ethical Relations Committee on this charge. At that time the charges were preferred and Dr. Glenn acted as prosecutor. The statement made at that time by this Committee was that my testimony alone had prevented the Chicago Medical Society from getting R. W. Chilcott. I stated that I had only told the truth when I testified and if I had refused to go down I would have been subpoenaed and taken down. This statement of mine is supported by the statement of

Judge Rooney himself, in which he says, "Dr. Blaine L. Ramsay after the defendant had telephoned him dictated a certain prescription over the 'phone with instructions to give it to said Wright. There was nothing to ascribe that he had violated the Medical Practice Act."

My contentions are that even though Wright was not in Chilcott's office at the time he 'phoned, I could not be there and in my own office at the same time. I am not vouching for the authenticity of this man. I gave instructions to this man which are clearly remembered by the parties concerned.

At this time Dr. Glenn acted as prosecutor he read a resolution that had been passed following this act of mine some three or four months. This was a resolution of the Chicago Medical Society which he said covered my case. I will read you this resolution: "The matter of prescribing for irregulars was brought up for discussion and a motion was adopted that it be the consensus of the Council that when a person lends his assistance to non-medical practitioners that such action be considered irregular and sufficient to disbar him from membership in the Chicago Medical Society." I will say that was the charge under which Dr. Glenn said my case would fit. At the Council meeting of the Chicago Medical Society I was informed that I was dismissed under a clause of the American Medical Association which read something like this: "It is unprofessional for a physician to assist an unqualified person to evade the legal restrictions regarding the practice of medicine." I had a distinct impression that this rule was made to fit my case and did not make me feel uncomfortable. I am not denying this case. I am not trying to excuse the man who said I did this. I say that professional men do prescribe to mothers or to some assistant that way, telling them to put murine or boric acid in somebody's eye and then see the case themselves the next day. I feel that this sentence which has been prescribed for me has been too much, particularly where it concerns one so vitally as it does me. I feel that expulsion from the Chicago Medical Society has resulted in having my cases barred from West Suburban Hospital where I was invited to become a member of the Board. Later on I was asked to take my cases elsewhere. That is not such a terrible thing. The result of it is that my patients in Austin, Oak Park and River Forest are building me a hospital to cost \$700,000 so that I might have a place to take my work. It might be very good, but just the same I think enough of the Chicago Medical Society to want to be a member. I want to be considered a man with men. I want to be considered a responsible man who can associate with his colleagues. A thing I have always enjoyed is the association of men. I do not see because I have been done an injustice by one or two or three men that the whole Society should be against me. I do not feel resentment to the Illinois State Medical Society. I still have that fortunate feeling. I hope I will remain big enough in mind to carry this

through. I want to say that perhaps you are going to speak definitely on this subject. The Chicago Medical Society in his charges presented at that hearing an affidavit from M. R. Wright which was obtained thirteen days following my hearing before the Chicago Medical Society. I had not heard of this affidavit until the night I presented my appeal to the Council of the Chicago Medical Society. M. R. Wright swore that no telephone call was made while he was in R. W. Chilcott's office. When I appealed to the Chicago Medical Society I was denied the privilege of bringing in witnesses or having the hearing of witnesses on this case. That I will tell you about in a moment. At this same time that Malcolm Wright had his hearing the Medical Society had Malcolm Wright and his wife there to introduce them in the evidence. Turn about is fair play. If I could not produce witnesses at a previous hearing then that Council should not produce witnesses against me at another meeting. I should have said the Council did not produce them but the affidavits were produced. That was my first intimation that Chilcott did not call me while Wright was in the office. If Wright was not in there that is Chilcott's funeral.

Now the Chicago Medical Society Council claims that the reasons for my dismissal was that it was my second offense during the year. It was stated, as it was, that I was brought before the Ethical Relations Committee on the charge of Dr. Trowbridge of Oak Park. I had a patient by the name of Sher. I attended this family as charity cases for two years. I had this lady in bed for what I considered was the menopause—increased periods. Dr. Trowbridge had finished his internship at the West Suburban Hospital and was taking his meals at Mr. Sher's home. I was informed one evening that Mrs. Sher was to be operated on for carcinoma the next morning and that I was to be sued. I knew this man Trowbridge's personality. I went to the hospital, went in and witnessed the operation. My instructions to the surgical nurse at that time were that I would like to have this specimen examined "because I am being threatened with a suit because this is a cancer." I met this man Sher two or three days later and said, "Good morning, Mr. Sher." "I understand you neglected my wife." "In what way?" "My wife would have been dead in a short while if I did not have Dr. Trowbridge. My wife has cancer," "Yes, how do you know?" "I know a cancer when I see it." I said, "Mr. Sher, you know more than many doctors if you know cancer when you see it. The only way you can know whether Mrs. Sher had cancer is to get your doctor to give you the report. I do not want you to feel that because you are charity that I have neglected your wife." The matter was dropped. Charges were preferred by Dr. Trowbridge, who had conferred with certain parties who had advised him to proceed. This same party had gotten the record, taken it from the hospital against the rules and regulations that one doctor shall not get the record of another man's

case without permission of the patient or the hospital. This record was in the possession of the doctor who had gotten it as further evidence of my unprofessional conduct. The record that I speak of was one of incomplete abortion. I had not performed an abortion. That was brought up in an endeavor to get my license. The word "incomplete" had been erased on the record but with a naked eye you can see where this word was originally written in the record. That record was put in with this. The Ethical Relations Committee did not consider that at all. A meeting was held and Dr. Trowbridge was present. We had a consultation together with some very reputable physicians in Oak Park and Austin and he said he did not feel any particular animosity toward me. He would let it drop. He was advised that he could not let it drop. He said he would do what he could. This was reported in the *Bulletin* of the Chicago Medical Society. The report went up to the Council and the Council refused to accept the report and referred it back for further hearing. I was brought before the Committee again. The evidence was heard again. Mr. Sher came down. Dr. Trowbridge gave his testimony. I was found guilty of the charges and recommended to six months' suspension. I was going to appeal but was advised to let it go.

The Society in its decision has deprived me of a valuable asset in the Chicago Medical Society. I tell you, gentlemen, it is not a pleasant thing when you have a high record for this Society to expel you on such, what I consider, rather trivial things that have been made mountains out of. There have been a great many other things that have been remembered. I will say this that I have been sorely maligned. I have been accused of this and that. As your medico-legal man just said, all you have to do is to fight it out. I was with fear and trembling when this first came up, but when I saw the support of the people it gave me more of a feeling of security, so that I feel like fighting it out. I have fought it out. I have given my accusers every chance to prove it. As far as publicity is concerned this has not hurt. It has only strengthened me in my determination to go on and convince the people that I am a man of worth and confidence and I am worthy of an association in your Society. If I do not get back in your Society in ten or fifteen years I will still be there. I do not feel you are all against me. Regardless of the action of the Council I want you to feel it is not going to be directed against you. It is a matter of what I consider as right and wrong. If I appeal through the several branches of this Society and finally have to let the court decide, in the matter of business then that will have to be done.

I thank you for your consideration.

The Chair announced that Dr. Ramsay had talked for 29 minutes without interruption.

Dr. Chapman said that it seemed to him that

since the appeal was made from the Council to the Illinois State Medical Society that the House should entertain a hearing from the Council.

Dr. J. S. Nagel, Chicago, was then called on. He spoke as follows:

"The Council of the Illinois State Medical Society took this matter up at their last meeting in Chicago. In Section 6 of Article IX of the constitution and by-laws, the Council is permitted to have its charges placed in writing. The Council ordered the Chicago Medical Society to put its charges in writing and Dr. Ramsay's charges were put in writing. The Council read over both. By unanimous vote they voted to sustain the action of the Chicago Medical Society in the expulsion of Dr. Ramsay.

"Dr. Ramsay said that in his appeal he was denied the privilege of having witnesses present. I was chairman of the Council when this took place. Dr. Ramsay appeared at the Council in his appeal, and when he states that he was refused the introduction of witnesses he asserts an unqualified falsehood to the House of Delegates. He appeared at that Council meeting with a lawyer and a stenographer. We went into executive session and the Council voted that we did not admit lawyers and outsiders to our meetings. He got the chance of any member of the Chicago Medical Society to present his evidence if he chose. He insisted that his lawyer and stenographer should be in the room. That was denied. The question of witnesses was not taken up. The only question was whether he should be permitted to have a lawyer and a stenographer in the room and the Council denied it."

Dr. Henry F. Bruning, Chicago, moved that the findings of the Council be concurred in. Motion seconded.

Dr. L. C. Taylor, Springfield, stated that there were three members present as delegates who were members of the Committee before which the charges are now being heard in the Department of Registration and Education. He wanted simply to go on record as saying that these three should not participate in the voting. He asked that he be excused from voting.

Dr. C. F. Burkhardt, Effingham, said he was on the Council when this matter was brought up and went over the proof. He was not going to make a plea in favor of the gentleman nor was he going to say anything against him. He felt it was a vital question to Dr. Ramsay. He be-

lieved every man who had heard this plea should have a right to vote on this. It should be by ballot. He felt that the matter should be handled to give a fair, straight decision.

Dr. Edward Bowe, Jacksonville, felt it was not so much in the matter in this case as in the matter of precedence. As far as the merits or demerits of this case are concerned, a great many of the delegates are unable to form any conclusions from what was given. This man has appealed from the findings of one body to another which he deems to be a higher court. This body is going to pass on that appeal. They should pass on it impassionately and intelligently and be governed by the fact. He wanted to know how they were going to arrive at any definite conclusion from the brief statement given. His idea was that it should be referred to a committee. This body is the parent body of the Chicago Medical Society. The Supreme Court does not take what the Circuit Court has said about a case. He suggested that this committee make an examination of the evidence from both sides and then make some sort of recommendation. It is not a matter of merits or demerits; it is a matter of precedence.

Dr. Chapman called the attention of Dr. Bowe and the other delegates to the fact that there is only one avenue to membership in the State Society; that avenue is through the local society. The House of Delegates cannot force a local society or a component society to accept a man into membership unless the local society is agreed.

Dr. J. E. Tuite, Rockford, said he did not know just how to vote on this matter. It is of vital importance to this man. The licensing committee will be perfectly justified in removing his license if the charges are true. He might still be in good standing with the license committee without being a member of our society. He said that in his town nurses were practicing medicine under the direction of physicians and many of them are doing it without the direction of a physician. Some of the doctors who are giving them instructions are not in good standing with this society. A surgeon in Rockford operated on a patient with an osteopath giving the anesthetic.

Dr. E. P. Sloan said that was a question for Dr. Tuite's local society.

Dr. C. F. Burkhardt said if the House of Delegates had any right to vote on this matter they were acting as a jury to decide this man's case.

He believed it should be big enough to decide it fairly. He believed the Chicago Medical Society was big enough to abide by the decision of the House of Delegates. That was why he was speaking for fair play; he did not believe in snap judgment.

Dr. Sloan then read the statement on which Dr. Ramsay based his appeal: "You assured me that any opportunity given the Ethical Relations Committee would also be given to me. You required me to present my case in writing but did not require the Ethical Relations Committee to present theirs in writing; in other words, I was in effect deprived of a hearing." He then asked the Secretary to read the article from the constitution and by-laws pertaining to such matters.

Dr. Chapman then read Section 3 of Chapter VIII of the by-laws:

The Council shall be the board of censors of the Society. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the component societies or to this Society. All questions of an ethical nature before the House of Delegates or the General meetings may be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or component societies on which an appeal is taken from the decision of an individual Councilor. An appeal from the decision of the Council may be taken to the House of Delegates.

Dr. Chapman said on behalf of the Council that in the matter of hearing what was required of one side was required of both sides. No one appeared in person in behalf of the Chicago Medical Society before the hearing of the Illinois State Medical Society. He further stated that the unanimous vote mentioned by Dr. Nagel was not unanimous in that Dr. Humiston, a member of the Council, asked to be excused from voting and did not vote. This case was a matter within the jurisdiction of the Council.

Dr. J. W. VanDerslice, Chicago, said this was an appeal, the trial of a man for unethical conduct. Laws are laid down by the American Medical Association and followed through the component societies. It is very definitely written in the Judicial Council and it has always been inferred in the House of Delegates that the evidence is not reviewed, that only the case is reviewed in so far as the procedure is concerned. If the House is to take time to re-hear the case and bring witnesses down from Chicago, it makes a very different thing from what has always been

the custom in the House of Delegates. The House of Delegates is not here to decide on the evidence presented because there is no evidence presented. The man simply comes in and makes an appeal. He makes some statements which are hardly conclusions. The appeal is whether this man was given a fair trial before the Ethical Relations Committee. That was decided by the Council of the Chicago Medical Society. The question of whether he had a fair trial before the Chicago Medical Society was decided by the Council of the Illinois State Medical Society and whether he was given a fair trial by the Council of the Illinois State Medical Society is to be decided upon now. In his opinion the Council gave this man a hearing according to the constitution and by-laws of this society, which gives each member an equal right. That is what is to be decided at this meeting. The House is to decide the merits of the case, not of one man coming in and telling his side of the case. The Chicago Medical Society, the Ethical Relations Committee of the Chicago Medical Society and the speaker knew nothing about this case. The Secretary of the Chicago Medical Society as secretary knew nothing about this. It is quite as much of a surprise to the delegates from Chicago as to the others that this trial has come up. They had no idea that there was any such thing planned. The Ethical Relations Committee of the Chicago Medical Society is not presenting the evidence that was presented to it. He believed the others present would bear him out, that it was not the office of the Ethical Relations Committee to come down and show the evidence. The thing to be decided is whether this man had a fair trial before the Council of the Illinois State Medical Society and anything else is beside the point.

The Chair then announced that Dr. Ramsay would be given an opportunity to speak in rebuttal.

DR. BLAINE L. RAMSAY: In the first place Dr. Nagel's explanation places me in a bad light and I wish to resent that in this way. If the notes of that meeting were taken I ask this committee or this body to see the statements of these gentlemen upon whose testimony I was expelled or suspended. At that time one gentleman stated that appeal was brought up not by witnesses but by records. If I am not mistaken the evidence was brought by witnesses. That is the first thing on which Dr. Nagel and I cross. Another thing is the matter of hearing this and deciding on its merits. I came before this body to state that the

sentence passed upon me was too severe for the charges. That action upon which the charges were preferred, if they are true and without explanation, should not deprive a man of a valuable asset as this medical society membership is.

In reference to Dr. VanDerslice, he says "we are to decide upon whether he was given a fair hearing." How do you know I was given a fair hearing? If you question whether or not I am telling the truth, how do you know I was given a fair hearing? If you are to decide whether or not I was given a fair trial before your Council, you gentlemen must go on the side of this committee. I have appealed to this body. A society has a right to do anything to its members as long as it stays within the ideals of American fair play. I feel that I have not been given evidence of fair play. You have been very courteous but I wish to say the sentence is too severe. That is my contention. Whatever I have done I am sorry for. If I have transgressed on the ethics, I will say that young men are turned out of medical schools with no more idea of medical ethics than a cat does about Sunday. We try to get information as to the way things should be done, but it is hard to get.

The Chair then announced that no more evidence would be accepted. The House would hear the argument. The laws of the State Society specifically state that it could require evidence from both sides to be presented to it in writing. The Chair wanted it understood that Dr. Ramsay's side of the case was presented in full and that the records of the Chicago Medical Society and its Council were reviewed in the Council of the State Society. If Dr. Ramsay has presented some evidence to show that the action of the State Society was not regular or the action of the Chicago Medical Society was not regular, then, the Chair said, some further action should be taken upon it, but not unless he had proved his case. He said a man is innocent until he is proven guilty; the Chair added that the records of the Legislative body of the Society were correct until proven incorrect. The then called the attention of the House to Roberts' Rules of Order, page 304. Dr. Ramsay's contention is that the Council required him to present his case in writing but did not require the Ethical Relations Committee or any one else opposing him to present their evidence in writing.

The Chair then called attention to the fact that Dr. Bruning had made a motion to sustain the action of the Council which was seconded by Dr. McNeill. This motion was not acted upon and was still before the House.

Dr. H. P. Beirne, Quincy, said he was a mem-

ber of the Council and wished to be excused from voting.

Dr. Price said Dr. Burkhardt was mistaken regarding his being a member of the Council at the time this case came up. It was taken up after the expiration of his term.

Dr. W. H. Gilmore said he saw no reason why a member of this Council should shirk his duty. When the members of the Council voted before he saw no reason why they should be excused from voting now.

The Chair then announced that if there was no objection from the House all the Councilors who wished would be excused from voting. The three members of the Medical Board and the Councilors were excused.

Dr. Wilkinson asked whether they were to vote on the guilt of this member or as to whether the action of the Council should be sustained.

Dr. Meyer, Bloomington, said the House was not trying this man. He came before the body as an appeal and it was the duty of this body to sustain their Council.

The Chair announced, if there was no objection, the voting would be in the usual way.

It was moved that the vote be a rising one. Motion seconded and carried.

The motion to be voted on was that the House of Delegates sustain the action of the Council of the Illinois State Medical Society in regard to Dr. Ramsay. The motion was carried unanimously by a rising vote.

Dr. C. S. Nelson, as Chairman of the Council, thanked the delegates for the confidence shown in the Council.

Dr. VanDerslice moved that the executive session be ended and the House revert to the regular order. Motion seconded and carried.

The executive session then adjourned.

The Chair then called the House to order and the regular business was continued.

The next order of business was the presentation of amendments to the constitution. One was presented by Dr. J. S. Nagel, Chicago, and the other by Dr. Edward Bowe, Jacksonville.

The Chair appointed the Resolutions Committee, consisting of Drs. W. S. Bougher, Robert Hayes and A. B. Middleton.

Dr. Robert Hayes moved that a committee be appointed to consider the two amendments to the constitution just presented to see whether the wording of other parts of the constitution and

by-laws would not need to be changed if these resolutions were passed. Motion seconded and carried. The Chair appointed Drs. Robert Hayes, Karl Meyer and H. M. Camp as members of this Committee.

It was moved that the meeting adjourn. Motion seconded and carried. Meeting adjourned at 11:45 P. M.

Second Session

The second session of the House of Delegates was called to order by the President, E. P. Sloan, on Thursday, May 17, 1923, at 8:40 A. M. in the County Court Room, Decatur.

The first order of business was the report of the Credentials Committee. The Secretary read the report and the Chair announced if there were no objection the report would be accepted.

The Secretary then called the roll and announced that a quorum was present.

The next order of business was the reading of the minutes of the previous meeting. It was moved that the minutes be accepted. Seconded and carried.

The next order of business was the election of officers.

Dr. Mather Pfeifferberger, Alton, placed in nomination the name of Dr. L. C. Taylor of Springfield. Seconded by Dr. Grinstead. It was moved and seconded that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Taylor as President-Elect. Motion seconded and carried. The Chair declared Dr. Taylor elected.

The name of Dr. R. L. Morris, Decatur, was placed in nomination for first Vice-President. Seconded.

It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Morris as First Vice-President. Motion seconded and carried. The Chair declared Dr. Morris elected.

The name of Dr. Blanche Burgner, Chicago, was placed in nomination for Second Vice-President. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Burgner for Second Vice-President. Motion seconded and carried. The Chair declared Dr. Burgner elected.

The name of Dr. A. J. Markley, Belvidere, was placed in nomination for Treasurer. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the

ballot for Dr. Markley as Treasurer. Motion seconded and carried. The Chair declared Dr. Markley elected.

The name of Dr. W. D. Chapman, Silvis, was placed in nomination for Secretary. Seconded. It was moved that the nominations be closed and the President be instructed to cast the ballot for Dr. Chapman as Secretary. Motion seconded and carried. The Chair declared Dr. Chapman elected.

For Councilor of the First District the name of Dr. D. B. Penniman, Rockford, was placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Penniman as Councilor for the First District. Motion seconded and carried. The Chair declared Dr. Penniman elected.

For Council of the Second District the name of Dr. E. E. Perisho, Streator, was placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Perisho as Councilor of the Second District. Motion seconded and carried. The Chair declared Dr. Perisho elected.

For Council of the Third District the name of Dr. S. J. McNeill was placed in nomination to succeed himself. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. McNeill as Councilor from the Third District. Motion seconded and carried. The Chair declared Dr. McNeill elected.

For Council from the Eighth District the name of Dr. G. B. Dudley, Charleston, was placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Dudley as Councilor for the Eighth District. Motion seconded and carried. The Chair declared Dr. Dudley elected.

For Councilor from the Ninth District Dr. W. H. Gilmore placed in nomination the name of Dr. Andy Hall, Mt. Vernon. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Hall as Councilor from the Ninth District. Motion seconded and carried. The Chair declared Dr. Hall elected.

For delegates to the American Medical Association the names of Drs. G. H. Mundt, Chicago,

J. W. VanDerslice, Chicago, H. P. Beirne, Quincy, R. F. Green, Peoria, and C. E. Humiston, Chicago, were placed in nomination. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for the men named for delegates to the American Medical Association. Motion seconded and carried. The Chair declared Drs. Mundt, Beirne, VanDerslice, Green and Humiston elected.

For Alternate Delegates the names of Drs. J. R. Ballenger, Chicago, I. S. Trostler, Chicago, R. Hazen, Paris, and Leo Frech, Decatur, were placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for the above-named men for Alternate Delegates. Motion seconded and carried. The Chair declared Drs. Ballenger, Trostler, Hazen and Frech elected as Alternates.

As members of the Committee on Public Policy the names of Drs. Emmet Keating, Chicago, Warren Johnson, Chicago, and John F. Sloan, Peoria, were placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for these three men as members of this committee. Motion seconded and carried. The Chair declared Drs. Keating, Johnson and Sloan elected.

As members of the Committee on Medical Legislation the names of Drs. Edward Bowe, Jacksonville, C. E. Humiston, Chicago, and John R. Neal, Springfield, were placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for these three men as members of this Committee. Motion seconded and carried. The Chair declared Drs. Bowe, Humiston and Neal elected.

As members of the Medico-Legal Committee, the names of Drs. C. G. Farnham, Peoria, and C. A. Hercules, Chicago Heights, were placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Drs. Farnham and Hercules as members of this Committee. Motion seconded and carried. The Chair declared Drs. Farnham and Hercules elected.

It was moved that the Committee on Medical Education and Hospitals be dropped. Seconded and carried.

As members of the Committee on Relations to Public Health Administration the names of Drs.

A. H. Geiger, Chicago, J. J. Pflock, Chicago, E. W. Fiegenbaum, Edwardsville, A. A. Hayden, Chicago, and H. M. Camp, Chicago, were placed in nomination. Seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot of the above-named men as members of this Committee. Motion seconded and carried. The Chair declared Drs. Geiger, Pflock, Fiegenbaum, Hayden and Camp elected.

The next order of business was the fixing of the per capita tax. Dr. Chapman moved that the per capita be \$5.00, the same as at present. Motion seconded and carried.

The next order of business was the decision as to a meeting place for 1924. Dr. Edward Bowe moved that the meeting be held in Springfield. No second.

The Chair said he thought it was a good idea to go to Springfield on the off year when the Legislature was not in session.

It was moved that the meeting place be referred to the Council with power to act. Seconded.

Dr. Bowe moved an amendment to this motion that it be the consensus of the House of Delegates that Springfield be the first choice, provided satisfactory arrangements could be made with the Council. The amendment was accepted and then seconded. Motion as amended carried.

Under unfinished business, Dr. J. R. Neal gave the final report of the Committee on Medical Legislation. He said that the House bill was reported out of committee yesterday and was on the floor of the House. The Senate bill was reported out and was set for reading next Wednesday. Dr. Neal then presented the following resolution:

WHEREAS, there is now pending in the Legislature of Illinois a House Bill which is a substitute for bill No. 242, relating to the practice of treating human ailments, and

WHEREAS, in said bill section 39 provides that annually each holder of a license to treat human ailment in the State of Illinois shall file with the Department a written report over his signature and shall at the same time pay a fee of one dollar, and

WHEREAS, it is apparent that no protection is offered to the public health by said provisions, and such voluntary registration is manifestly inoperable in that the section does not provide that the Department shall acknowledge receipt of such report, but it does provide that a violation of the section is subject to a penalty of \$25.00, and

WHEREAS, it is a fact that the present fees collected from applicants of those who are examined to treat human ailments are adequate and self-supporting, and

WHEREAS, compliance with the provision will in no wise enable the department to locate illegal practitioners and will not offer any greater safeguard than the present registration of a certificate in the County Clerk's office.

BE IT THEREFORE RESOLVED by the House of Delegates of the Illinois Medical Society in annual session assembled that it is unanimously and unalterably opposed to the said section as being devoid of protection to the public health and that the same be removed from the bill, and

BE IT FURTHER RESOLVED, that the Chairman of the Legislative Committee be directed to send a copy of these resolutions to each member of the House of Representatives and respectfully ask that Section 39 of the proposed bill be stricken out.

Dr. Edward Bowe, Jacksonville, moved that that resolution be the resolution of the House of Delegates.

Dr. Van Derslice moved that the rules be suspended and that any resolution regarding the Legislative Committee be accepted this morning. Motion seconded and carried.

Dr. Bowe then renewed his motion. Seconded.

Dr. Whalen said that as a matter of information in the ILLINOIS MEDICAL JOURNAL a few years ago this subject was taken up and he referred the Committee to the Journal for the objections set forth therein in the hope that they might see fit to embody them in their resolution.

Dr. Van Derslice moved an amendment to Dr. Bowe's motion that the Committee on Medical Legislation be empowered to reword this resolution and to present it to the regular channels as they saw fit. Seconded after amendment was accepted by Dr. Bowe. Motion carried.

Dr. L. C. Taylor, Springfield, felt in support of Dr. Neal's report that the delegates should have the most specific information in regard to how this resolution mentioned in the report got into the bill. It was not in the original bill. The bill was referred to several committees. The reason is that in the House there are about 40 real estate men who had to renew their licenses and they contended that if they were compelled to renew their licenses the professional men should also be required to renew theirs. These men were told in the presence of Mr. Sutherland of the Department of Registration that neither the Department of Education and Registration,

the Committee on Legislation, the House of Delegates or the physicians of Illinois would stand for that proposition, that they (the physicians) would be obliged in case the bill was reported out on the floor of the House to fight it on the floor of the House and if by any chance it passed both houses they would be obliged to ask the Governor to veto the bill because the physicians of Illinois were opposed to it.

Dr. C. E. Humiston, under the privilege granted by the House, presented the following resolution:

WHEREAS, Illinois is one of the foremost states in medical education and

WHEREAS, Illinois is one of the most backward states in medical legislation, therefore be it

RESOLVED by the Illinois State Medical Society in convention assembled that the people of this state be urged to request of the legislature a new *Medical Practice Act* which will guarantee to the citizens of this commonwealth that measure of protection to their health and lives to which they are justly entitled.

It was moved that this resolution be adopted. Motion seconded and carried.

Dr. E. P. Sloan stated that the State Department of Health was greatly handicapped by the lack of a registry of physicians of the State of Illinois. The ones published are not complete. The Department of Registration has found that many doctors practicing in Illinois have never been registered. The question comes up as to whether it is worth while for the House of Delegates to pass a resolution urging the Department of Registration to get out such a directory of physicians.

Dr. Meyer, Bloomington, said it was a very inopportune time to attempt such a thing. The House had just passed a resolution condemning re-registration and the matter of a new registration of physicians should not be taken up.

Dr. Whalen said he had called Mr. Sheldon's attention to the fact that there were two complete registry books, the American Medical Association Directory and the Blue Book. He said he had called his attention to the fact that to make a new registry all he would have to take was to take the pages of the A. M. A. directory and perhaps add a hundred or two hundred names.

Dr. Edward Bowe said the resolution presented by Dr. Neal did not include the cults.

Dr. Neal said, it said all doctors and healers.

Dr. Bowe said the Christian Scientists could

not be touched. Dr. Neal said they had no license.

Dr. Bowe said if a survey was to be made why not include everybody who is handling the sick.

Dr. Neal said he agreed with Dr. Meyer that it was a very inopportune time to make a new registry.

Dr. H. N. MacKechnie, Chicago, moved that the House of Delegates of the State Society send an invitation to the American Medical Association to meet in Chicago in 1924. Motion seconded and carried.

Dr. A. M. Shaw, Adrian, wished to present a resolution to amend Section 5 of the Constitution. Dr. Chapman reminded him that the State Society works from the constitution and by-laws of the American Medical Association. The recognized procedure of the A. M. A. by-laws is that there may be an appeal from the decision of the House of Delegates of this Society to the American Medical Association. If the wording of this Section were changed it would break the connection between the State Society and the American Medical Association.

The Chair informed Dr. Shaw that if he wished to hand a resolution to amend the constitution to the Resolutions Committee, it would be acted on next year.

The next order of business was the report of the Resolutions Committee.

The resolution on the death of Dr. Lillie was presented, as follows:

RESOLUTIONS ON DEATH OF DR. LILLIE

WHEREAS, the All Mighty ruler of the Universe has seen fit to remove from our midst Dr. Charles W. Lillie, councilor of the ninth district and past president of our Society, a physician who stood high in his profession and in the esteem of his fellow citizens.

Be it resolved, that we the members of the House of Delegates of the Illinois State Medical Society in its seventy-third annual session at Decatur, Ill., do hereby express our sincere regret in the loss of such a valuable and conscientious worker and.

Be it further resolved, that a record of this resolution be placed upon our minutes as a memorial to his noble work, and

Be it further resolved, that a copy of this resolution be sent to his widow.

It was moved that the resolution be adopted. Seconded and carried.

It was moved that the House of Delegates adjourn. Motion seconded and carried. The House adjourned at 9:50 A. M.

Marriages

GEORGE L. APFELBACH, Chicago, to Miss Alice Hotz of Glencoe, Ill., June 28.

FREDERICK ROBIN GREEN to Miss Helen Hutchinson, both of Chicago, June 30.

CARSON K. GABRIEL, Payson, Ill., to Miss Mabel Miller, of Chicago, April 28.

ROBERT S. HARWOOD, Oak Park, Ill., to Miss Lillian Feurlicht, of Chicago, May 23.

DANIEL F. HAYES, Chicago, to Miss Marie Keefe, of Oak Park, Ill., June 2.

NICHOLAS ANTON HERRMANN, Equality, Ill., to Miss Margaret Woods, of Chicago, May 12.

THOMAS ARTHUR JOHNSON to Miss Myrtle Elizabeth Swanson, both of Rockford, Ill., June 6.

YNGVE JORANSON to Miss Irene Johnson, both of Chicago, June 9.

Personals

Dr. Robert J. Burns has been appointed health commissioner of Freeport.

Dr. Francis M. Roberts, Chapin, has been appointed superintendent of Oak Lawn Sanatorium, Jacksonville.

Dr. James B. Hundley has been appointed city health officer of Danville, to succeed Dr. William C. Dixon, who resigned May 14.

Dr. Roy W. Johnson has resigned as health officer of Shelbyville. Dr. Adolph G. Mizell has been appointed to succeed him.

Dr. Joseph Springer, coroner's physician of Cook County for twenty-six years, resigned June 1. Dr. Irving Porges will succeed Dr. Springer.

Dr. F. G. Banting of Toronto, discoverer of the insulin treatment for diabetes, is listed for an annuity of \$7,500 in budget estimates in the Canadian house of commons yesterday.

The faculty of Rush Medical College gave a banquet to Dr. Norman Bridge at the Auditorium Hotel, June 13, the fiftieth anniversary of Dr. Bridge's appointment to the faculty of the college. Northwestern University conferred the honorary degree of doctor of science on Dr. Bridge at the annual commencement exercises, June 18.

Dr. Harold B. Wood has been reappointed health director of Bloomington.

Dr. George Thomas Palmer of Springfield has been appointed a member of a special committee of the National Tuberculosis association created at the request of the U. S. Veterans' bureau for the purpose of determining the practicability of home treatment of tuberculous soldiers, marines, sailors and nurses of the World War. Other members are Drs. Frank Billings, Chicago, W. Jarvis Barlow, California, Kennon Dunham, Ohio, W. L. Dunn, North Carolina, A. T. Laird, Minnesota, and David R. Lyman, chairman, Connecticut.

Dr. J. M. Furstman, director of health and hygiene in the public schools of Peoria, has limited the weighing of children to those in the open air rooms while continuing the physical examinations in all the lower grades and has thereby raised the ire of the *Woman's Home Journal*, which perhaps confused the school measures with the pediatricists' weighing of infants and young children.

Dr. O. Theo. Roberg of Chicago attended the Neurological Society meeting in Boston and will visit the International Congress of Surgeons in London and the Clinics of Berne, Paris and Vienna.

News Notes

—According to reports, Clifton G. Stone, River Forest, with offices in Chicago, was arrested June 4 on a charge of practicing surgery without a license.

—At the eighth annual meeting of the Chicago Society of Internal Medicine at the City Club, May 28, the following officers were elected for the ensuing year; president, Dr. Robert H. Babcock; vice president, Dr. Solomon Strouse, and secretary-treasurer, Dr. Newell C. Gilbert.

—The fifty-third general assembly at its closing session, June 19, passed a new medical practice act to replace the 1917 law and the old practice act of 1899 under which the state now operates. The bill now awaits the governor's signature.

—A second whisky permit revocation court was created in Chicago, May 28, at the prohibition office by a special staff of inquiry from Washington, D. C. The duties of the new court will be to examine druggists charged with filling bogus liquor prescriptions and to investigate illegal withdrawals of liquor. Judge Elmer

Little has been ordered to Chicago from Washington to establish this second revocation court.

—The right to divert more water from Lake Michigan through the drainage canal than is authorized by the Secretary of War was forbidden the sanitary district by Judge Carpenter, June 18. At present the district is allowed to take 4,167 cubic feet a second, but contending that that amount is not sufficient to safeguard the health of Chicago, it has been taking 10,000 cubic feet. The district will carry the case to the Supreme Court. This decision comes fifteen years after litigation of the question began. The district contended that under the police powers of the state the state had the authority to take as much water from the lake as was required for the purposes of health and sanitation.

—At the fourth annual conference of the American Federation of Organizations for the Hard of Hearing, Inc., in Chicago, June 18-20, Dr. H. O. Jones of the department of health, Chicago, spoke on "Medical School Inspection"; Dr. Gordon Berry, Worcester, Mass., on "Deliberately Deaf"; Dr. Carl A. Menninger, Topeka, Kan., "Mental Effects of Deafness," and Dr. Harry Mock, Chicago, on "Industrial Rehabilitation Service Through Federal and State Acts." Dr. Harold Hays presided. A lip reading symposium was held Wednesday afternoon. The conference closed with a banquet at the Congress Hotel, June 20.

—A field physician of the state department of public health recently persuaded a newly elected mayor of a down-state municipality to recall a chiropractor appointed on the local board of health. Two physicians who had been appointed on the same board declined to serve with the chiropractor. The state department of public health took the position that it neither had nor sought to secure the power of dictating the color of local boards of health but that it looked with distinct ill favor on the official participation of chiropractors in public health matters and that in case of untoward communicable disease development under the administration of chiropractic boards of health the department would promptly exercise its legal power to take charge of the situation at local expense.

—The sixth annual meeting of the American Association for Thoracic Surgery was held in Chicago, May 29-30. Dr. Ralph Boerne Bettman, Chicago; Dr. Rudolph Matas, New Or-

leans, and Dr. William Lerche, St. Paul, were among the physicians who gave addresses. The following officers were elected for the ensuing year: President, Dr. Carl A. Hedblom, Rochester, Minn.; vice president, Dr. Nathan W. Green, New York, and secretary-treasurer, Dr. Charles Gordon Heyd, New York (reelected).

—At the annual alumni banquet of the University of Chicago, President E. DeWitt Burton stated that he hoped to see a group of eight or ten colleges after the manner of Oxford and Cambridge universities, England, in the near future; also a great medical school growing out of the affiliation with Rush Medical College. Dr. Burton said that work on the new medical school, which has been delayed on account of high building costs, will soon be started; \$5,000,000 has been raised for this purpose; it is said the medical school will eventually have behind it nearly \$25,000,000.

—A nation-wide survey of eyesight conditions in American education and industry has been undertaken by the Eye Sight Conservation Council of America. To estimate the effect of incorrect vision on production it has prepared a questionnaire covering individual performance, accidents, loss of wages, use of protective devices, etc.

—A drive to raise \$1,000,000 for the endowment of the General Medical College was announced June 13, at the alumni meeting of the college at the Chicago Athletic Club.

—Vermilion and Champaign County Medical Societies had a joint meeting in Danville, June 12, and invited all physicians in the eighth councilor district. Fay Inches discussed the "Work of the Division of Social Hygiene of the State Department of Health." Buda Carroll Keller of Chicago spoke on the subject, "Straws in the Wind." Reports from the Tri-State special Clinic Train were given.

—The seventy-sixth semi-annual meeting of the Aesculapian Society of the Wabash Valley was held in Mattoon, May 31.

—The National Health Council has undertaken a campaign to induce "at least" 10,000,000 persons to undergo physical examinations on their birthdays, annually.

—The Tri-State District Medical Association of Illinois, Wisconsin and Minnesota and districts of surrounding States will hold its annual assembly at Des Moines, October 29-November

1, 1923, and is arranging an excellent program as usual.

—The June issue of *Modern Medicine* contains a remarkable collection of special articles on "High Blood Pressure" by leading authorities of America and Great Britain. The twenty-six articles listed cover the entire field of medicine including life insurance and will be valuable in every department of practice. The price of this special number is 50 cents prepaid, and it can be secured from the office of publication, 18 East 41st Street, New York City.

Deaths

CHARLES H. AYLING, Gridley, Ill.; Northwestern University Medical School, Chicago, 1893; aged 53; died, May 23, of cerebral hemorrhage.

WILLIAM WALLACE BRUCE, Casey, Ill. (licensed, Illinois, 1880); aged 79; died, May 19.

JAMES SYLVESTER COLLINS, Carlinville, Ill.; Rush Medical College, Chicago, 1880; member of the Illinois State Medical Society; formerly mayor of Carlinville; aged 66; died, May 7.

EDWIN H. CROSS, Chicago; Cincinnati (Ohio) College of Medicine and Surgery, 1872; member of the Illinois State Medical Society; aged 79; died suddenly, June 15, of angina pectoris.

CONRAD HOWARD CZARRA, Chicago; College of Physicians and Surgeons, Chicago, 1899; aged 48; died June 10, at the Baptist Memorial Hospital, following an appendectomy.

JOSEPH DE STEFANO, Chicago; Rush Medical College, Chicago, 1889; aged 58; died, May 31, from the effects of carbolic acid, presumably self-administered.

EDWARD J. HOAG, Ridott, Ill.; Rush Medical College, Chicago, 1884; aged 63; died, May 3.

WILBUR MAYNARD FRENCH, Chicago, University of Illinois, College of Physicians and Surgeons, Chicago, 1902; Instructor Clinical Pediatrics at College of Physicians and Surgeons; Professor Pediatrics, Illinois Post Graduate Medical School; Attending Pediatrician to University Hospital; Member Chicago Pediatric Society; a Fellow A. M. A.; Illinois State Medical Society; aged 47; died, June 22 at Chicago.

ULYSSES HUTSON, Christopher, Ill.; American Medical College, St. Louis, 1878; aged 75; died, May 13.

EDGAR D. KERR, Westervelt, Ill.; College of Physicians and Surgeons, Chicago, 1894; a Fellow A. M. A.; aged 57; died suddenly, May 10, of heart disease.

HENRY CLAY KERRICK, Brocton, Ill.; Louisville Medical College, Louisville, Ky., 1887; Rush Medical College, Chicago, 1891; member of the Illinois State Medical Society; aged 62; died, May 11, at the Paris Hospital, Paris, of a stab wound in his chest, self-inflicted.

PHILIP H. LEIBROCK, Mascoutah, Ill.; St. Louis Medical College, St. Louis, 1883; aged 63; died, May 13, of heart disease.

THOMAS C. MCKINNEY, Carbondale, Ill.; Eclectic Medical Institute, Cincinnati, 1867; aged 83; was killed, May 29, when struck by a train.

HENRY J. LOVE, East Moline, Illinois; University of Michigan, 1907; a Fellow A. M. A. and at one time secretary of the Rock Island County Medical society; formerly a member of the surgical staff Santa Fe hospital at Ft. Madison, Iowa, and at Topeka, Kansas; served as captain, M. C., U. S. Army, during the World War with station at Camp Meade, Maryland; staff member of local hospitals and City physician of East Moline; aged 42; met death by drowning together with his nine year old son, John, on June 18, 1923, while bathing in the Mississippi river at East Moline.

EDWIN GRANT OGDEN, Chicago; New York Homeopathic Medical College and Hospital, New York, 1891; aged 55; died, June 4.

JOSEPH SMITH PIGALL, Chicago; Rush Medical College, Chicago, 1891; Jefferson Medical College of Philadelphia, 1892; a Fellow A. M. A.; formerly professor of internal medicine, Illinois Post-Graduate Medical School, Chicago; for fifteen years on the staff of the West Side Hospital; aged 54; died, May 30, of cerebral thrombosis and arteriosclerosis.

BENJAMIN I. POLAND, Danville, Ill.; Bennett College of Eclectic Medicine and Surgery, Chicago, 1883; Atlanta (Ga.) Medical College, 1895; member of the Illinois State Medical Society; on the staff of St. Elizabeth's Hospital, where he died, May 12.

CHARLES PUTNAM PRUYN, Chicago; Rush Medical College, Chicago, 1886; founder, and at one time professor of operative dentistry, Northwestern University Dental School; past president of the Illinois Board of Dental Examiners; aged 68; died, June 10, of paralysis agitans.

THOMAS SARGENT ROBERTS, Chicago; Jefferson Medical College, Philadelphia, 1887; aged 67; died, May 12, at the Cook County Hospital, of heart failure due to an overdose of drugs.

HARRISON ROSS ROGERS, Rockford, Ill.; Rush Medical College, Chicago, 1909; served in the M. C., U. S. Army, during the World War, with the rank of lieutenant; aged 38; died, May 30, of acute nephritis and pneumonia.

WILLIAM L. RUKENBROD, Sidney, Ill.; Eclectic Medical Institute, Cincinnati, 1878; aged 68; died, May 27, of angina pectoris.

ALFRED SCHIRMER, Chicago; University of Erlangen, Germany, 1876; aged 71; died, May 21, of cerebral hemorrhage.

RICHARD O. SMITH, Pittsfield, Ill.; Missouri Medical College, St. Louis, 1884; a Fellow A. M. A.; for several years served as county physician; formerly mayor of Pittsfield; aged 62; died, May 29, of angina pectoris and pneumonia.

WILLIAM LE GRAND SUGGETT, Flora, Ill.; St. Louis College of Physicians and Surgeons, St. Louis, 1884; aged 71; died, April 28, of cerebral hemorrhage.

C. L. WASHBURN, Marion, Ill.; Missouri Medical College, St. Louis, 1884; a Fellow A. M. A.; for several years served as county physician; formerly mayor of Pittsfield; aged 62; died, May 29, of angina pectoris and pneumonia.

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ILLINOIS MEDICAL JOURNAL

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Contributors will submit all copy for publication typewritten on standard size paper and double spaced. Copy not complying with this rule will be returned, if convenient.

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Editorial

OUR LAY PUBLICITY CAMPAIGN

After nearly a year of effort the minimum amount of money that will justify the inauguration of the lay publicity campaign in Illinois, has been obtained by the Council of the State society, and by the Committee appointed by this Council to aid in securing money and to supervise the campaign as recommended in 1922 by the House of Delegates of the State Society. The men charged with this great responsibility have given much thought to the problem of determining the most effective method for conducting this campaign of education. The personnel of the Council and the members of the Committee are anxious that every penny spent shall both benefit the public and do credit to the profession.

Since the war many firms and corporations have found it necessary to sponsor educational publicity for communities at large, in order to teach the people what is real and what is a mirage in many branches of civics and general economics. With the idea of profiting by their errors and wisdom alike, the campaign for lay medical information will be begun as soon as ways and means are determined upon definitely. More money is needed however, and now is the time for those who have not subscribed at all to send in their quota. What funds are on hand are pitifully insignificant when compared with the money spent each year in Illinois by various of the "cults" and "isms" to advertise their nefarious work that is so serious a menace to the public health. A representative of one of the "cults" boasts genially that his organization has collected already \$150,000 for the purpose of "putting over" at the next legislature, laws favorable to this especial "cult."

The medical profession holds in its hands the welfare of society. Incredible strides are made day after day by the medical profession, and the service rendered is monumental, though practi-

cally unknown to the citizenry. Proof of this assertion is to be found in the wonderful achievements of surgery, the control of infectious and contagious diseases and the lengthening of the span of human life. Every physician knows this. But the truth about the science of medicine and its works is as unrealized by the general public as are the facts relative to religion, science, economics and politics.

The doctor who would reach to-day's public must do this through the mediums that the public uses. Statesmen and publicists batten on this trick. These men know how to appeal to public opinion, and how to mould public thought. It is an art by itself and one that the professional man seldom acquires.

The Committee at this moment presents no exact formula as to how this end is to be attained. Only publicity of the highest ethical character under the direction of an expert can be attempted. The medical profession cannot be stultified by advertising in the blatant, disgusting fashion of quack and charlatan. Infinite pains will have to be taken not to terrify the reading or listening public. Careful guidance will be given them through the solution of problems of health conservation.

The Committee is cognizant that in the preparation of this educational campaign, consideration must be given to the attitude and receptivity of the public mind. Just now the science of medicine is being assailed by quacks. The sick and suffering are mulcted by unscrupulous pretenders. As the chosen guardian of national welfare the medical profession is bound to concern itself with what affects the health of the body politic. Right here the medical profession dare not sit silently by, without entering a protest. But that protest must be wisely made and with dignity. To bring about the greatest good to the greatest number, this propaganda for the rights of medical science as a saviour of the national health must be sent out in a phraseology that will appeal to the man of limited education as well as to his wealthier but perhaps even more befogged brother. While the argot of Chiropractors or of Cosmeticians need not be borrowed, it must be remembered that in this campaign colloquialisms, must, to a certain extent, supersede scientific clauses.

Brains and experience of the keenest quality must be bought and brought to bear upon this

problem, in order to make the Lay Publicity Campaign work with an efficiency standard of one hundred per cent. And to achieve this is the aim of the Committee pledged as it is to use every endeavor towards that end.

ILLINOIS DEFEATS SHEPPARD-TOWNER MATERNITY BILL

On June 13 a committee of the House of the Illinois State Legislature by a vote of 22 to 4 rejected the bill in the state legislature that provided for co-operation with the state of Illinois with what is known as the National Sheppard-Towner Maternity Bill.

The members of the House who defeated this bill are far-seeing gentlemen and they are deserving of the commendation of the people of Illinois.

The thinking men and women of the country who wish to conserve and not destroy the government foresee in the Sheppard-Towner as well as in other similar legislation nothing but disaster in the enactment of the thousands of paternalistic and bolshevistic legislation being attempted by dream book artists, followers of Lenine and Trotsky and whose ideals are exemplified in a soviet rule of the people. The Federal Maternity Act is only one of hundreds of others of a series of other demoralizing measures emanating from Congress that tend progressively to substitute federal bureaucracy for local self-government.

In the Sheppard-Towner Act and other paternalistic measures much more is at stake than taxes, jobs for welfare workers and placing new tasks on the authorities at Washington. Paternalism strikes at the very foundation of government. Too much centralization of government is a dangerous thing. The practice of unloading personal responsibility on swivel chair autocrats and remote bureaucrats in Washington must be stopped if the American people are to retain their self-respect which is the basis of self reliance and self help. We admit that several states have passed laws intended for co-operation with the Sheppard-Towner Act. It is likewise true that several other states whose law makers were far-seeing enough to note the dangers of a paternalistic government rejected the proffered "gift" Illinois gave its vote on the side of those who believe the Sheppard-Towner is a dangerous measure. In rejecting the Sheppard-Towner co-

operative measure Illinois helped materially to stop invasion by federal bureaucrats of the rights of the people.

As we have repeatedly stated in the JOURNAL paternalistic invasion has already gone too far in this country. It will go unlimited lengths and ultimately destroy the government unless a definite stand is taken immediately to head off its insidious growth.

HEALTH WORK IN PUBLIC SCHOOLS

The time for the re-opening of the public schools draws near and the question of the undernourished child is again before us for consideration.

The problem definitely belongs to the medical profession and, except for identification of the individual case, should not be cared for in the school system further than along educational lines. This should be the sole province of the public schools.

It has recently come to our attention that a number of plans to meet the question of malnourished public school children have been presented to the Chicago Board of Education for their consideration.

In any event the underlying cause of the malnourishment must be determined before adequate results can be obtained from any treatment or system.

This diagnosis rests in the hands of the physician. Medical supervision and diagnoses have been employed heretofore, yes, but that does not alter the facts that the detailed direction of such work has been in the hands of the laity and that many families have been and now are unjustly, and often unwillingly, the recipients of free medical care.

Why then should the further direction of the case, properly a medical one, be in the hands of the laity? Why should the advancing scientific knowledge of the men and women giving their best efforts to the solution of nutritional problems be applied unscientifically by members of the laity? Why should cases amply able to pay for medical care be included, through mistaken philanthropy, with those that are not? In the hands of the laity does it really help either the problem of undernourishment in a scientific way, the families who accept something for noth-

ing, or the medical profession—individually or collectively? Certainly not.

Of the different outlines for Health Education for the public schools so far brought to our attention the plan presented to the Board of Education by Dr. Katharine B. Rich seems definitely constructive, wise as far as the child is concerned, fair to the school, fair to the medical profession and practical in its use of established agencies without adding appreciatively to their regular duties.

The plan is in brief for all suspected cases of undernourishment coming under the daily observation of the school physicians to be referred through the medical supervisors to an appointed director. Each case is then to be referred to its own family physician; if no family physician is employed and a case is financially responsible, it is to be referred to a physician in the immediate neighborhood of the child's home; if the family is unable to pay for medical services, the case is to be referred to the nearest dispensary pediatric clinic.

Proper medical care and education would thus be secured, and the physical progress of the child would be noted through frequent communications with physician or dispensary.

Short periods of educational instruction along health lines are to be given by the public school teachers to their classes as a whole, no *segregation of any group of undernourished children being deemed advisable*. A monthly weighing would indicate the condition of the pupils as a whole.

The details of this plan are worked out along simple direct lines.

It has been suggested that as the physicians and nurses are under the control of the board of health it would be difficult to make this plan feasible.

In view of the following unabridged quotation from the *Bulletin* of the Chicago Medical Society of July 28, there would seem to be at least a grain of truth in the objection.

HEALTH DEPARTMENT METHODS

The following quotation is from the "Bureau of Medical Inspection, Division of Child Welfare," date March 27, 1923, signed by Herman Spalding:

"Every case of malnutrition, enlarged glands, anemia, heart lesion, suspect tuberculosis, other pulmonary diseases and rickets found by you in the schools shall be referred to the M. T. S. dispensaries for regis-

tration, observation and treatment. This enlarges the field from which cases may be selected."

"The Municipal Tuberculosis Sanitarium have ordered that each of the school tuberculosis physicians refer at least four children each week to their dispensaries."

If the Health Department were co-operating properly with the physician, all of these cases would properly be referred to the family physician, but instead of so doing, a definite order is sent out that at least four children each week from each school be sent to the dispensary in order that the mill can be kept grinding. How long will it be before there is no work left for the man who is the foundation of medical practice, the general practitioner?

The Health Department, the Municipal Tuberculosis Sanitarium, the Infant Welfare Society, and all State Health Departments which treat disease of any kind or description are drawing us one step nearer to State Medicine. The province of all Departments of Health, Municipal or State, is preventative medicine and the moment they begin treating disease, then they are practicing State Medicine.

But can it be possible that any Health Commissioner, himself a physician, would not primarily co-operate with all other members of the Medical Profession for the best good of the community?

Let us hope that the Chicago Board of Education and the Board of Health will co-operate and give Dr. Rich a chance for a fair trial of this plan—the first one to put the responsibility of the undernourished child where it justly should be—squarely on the shoulders of each individual physician.

HEALTH OFFICERS AND BRAINSTORMS

Brainstorms epidemic among hysterical health-officers, result daily in gross injustices to the profession, to the laity and to the nation. There is too much law and too little horse-sense. Paraphrasing a classic

"Proud Health-officers, dressed in a little brief authority,

Play such fantastic tricks through arbitrary statutes,

As make the very angels weep."

If angelic tears were the only resulting casualty, the situation would be less grievous. Unfortunately these miscast legal "cures" intensify the disease. Publicity-seeking, self-exploiting health-officers have gone absolutely out of their minds on the venereal disease question. There are almost as many laws brewing about prostitutes as about international boundary lines. Prevalent dangers from social disease are beyond

minimization, yet venereal ailments are only one of many mortal scourges. By the indiscriminate application of such laws as now hinder equable and effective treatment of these plagues, the adequate handling of venereal disease can not be achieved. Prostitution, invulnerable engenderer of venereal maladies, defies destruction by statute. Only through the ethics of the individual will come the cure for this terrible chancre of civilization. A higher sense of individual self-respect, a cleaner acknowledgment of the rights of the body and of its obligation to the soul is the base that is needed whereon to build.

There must be effected also a realization that lay dictation of medical jurisdiction and treatment, the political management of prostitution and its problems, constitute one of the moment's most appalling economic menaces. Current statutory tendencies place the legal retributive burden upon the woman and evade discriminative judgment as to individual and professional rights. Such inert, mechanical leverages as ordinances and statutes are called upon to exercise human intelligence in dealing with one of mankind's most delicate and mysterious adjustments. There are fashions in plagues as well as in bonnets. Just now the politico-medic finds that to be a *la mode* he must get out and crusade in behalf of the wild-eyed, fool-phrased statute as a syphilis specific. If he hurts only himself, no one would care. The pity of it is that the brainstorming health officer spreads about as much evil of an unfortunate kind with his specific statute as the poor prostitute does with her cursed and racked physique.

DEFECTS OF CHICAGO MORALS COURT

Attention is called to the able article in this issue by Dr. Lee Alexander Stone. This concise statement of conditions existing in Chicago's much advertised Morals Court shows the reverse side of the question,—one scarcely ever displayed to the general public fed up as it is by fairy tales of "welfarists" and self exploiting "slummers."

FRANKNESS IN ADVERTISING

Phil: An army and navy goods store on Tenth avenue, near Twenty-third street, is having a sale, and I lamped this sign on one of their shirts in the window: "These won't last long."—*The Globe*.

MICHIGAN SUPREME COURT DEFINES THE POWERS AND LIMITATIONS OF HEALTH OFFICERS

Arbitrary power beyond the reach of redress open to an injured citizen is not vested in boards of health.

Health department has no right to suspect and examine plaintiff so long as she has no accusers.

Board of health must steer clear of combining legislative with executive powers. Board cannot give itself power and then execute the power.

Law has not conferred upon boards of health the old time custom of the Samnites of examining the conduct of young people or holding general inquisition for the discovery of venereal disease.

Refusing right of quarantine in home and unlawful restraint is an unreasonable act on part of health officers.

It would be an intolerable interference by way of officious meddling for health officers to assert and then assume the power of making physical examination of girls at will for venereal disease.

The following is the decision of the Supreme Court of Michigan:

STATE OF MICHIGAN, SUPREME COURT

IN SUPREME COURT

Nina McCall Rock, by her next friend,
Plaintiff—Appellant.

vs.

Thomas J. Carney,
Ida B. Peck, and
Mary Corrigan,

Defendants—Appellees.

Before the Entire Bench, Except Clark, J.
Wiest, J. Concurring in Reversal.

The judgment should be reversed, but I am not willing to go the whole length of the opinion of Mr. Justice Fellows relative to the powers of boards of health and health officers.

I do not deem it necessary to state in full the limitations upon the powers to be exercised by health officers, but leave decision thereon until the proper case arises. It is sufficient to pass upon what was done here and determine whether, under the evidence, a case was presented for the consideration of the jury.

There is power to protect the public health; it is vested by law in public health boards to be exercised through reasonable rules and regulations duly promulgated. Whether such rules and regulations are lawful and reasonable, considering the true end in view and

personal rights guaranteed citizens by the constitution, constitute judicial questions beyond the power of the legislature to foreclose.

Arbitrary power, beyond the reach of redress open to an injured citizen, is not vested in boards of health or anywhere else under our system of government. While courts may well be loath to review health regulations, promulgated by an executive board under legislative delegated authority, yet in a proper case the duty exists, and no board by executive action can close the court and succeed in having its officers remain immune from judicial inquiry when a claimed unlawful exercise of authority has been visited upon a citizen and redress is asked.

Courts may be controlled by the determination of an executive board skilled as to what constitutes a dangerous communicable disease and may not attempt to review such classification, but the method adopted or exercised to prevent the spread thereof, must bear some true relation to the real danger, and be reasonable, having in mind the end to be attained, and must not transgress the security of the persons beyond public necessity.

Measures to prevent the spread of dangerous communicable diseases and to provide for the isolation and segregation of those diseased are practically as old as history. It has been said that:

"The history of pestilence is the history of quarantine."

The law of Moses segregated the lepers and their forced cry of "unclean, unclean" was the forerunner of the modern warning placard.

Ancient Rome and Greece had their systems under which those infected with leprosy were separated from the well.

In 1448 the senate of Venice instituted a code of quarantine, and a few years earlier a regularly organized lazaretto, or pesthouse, was established.

"The republic of Venice also established the first board of health. It consisted of three nobles and was called the council of health. It was ordered to investigate the best means of preserving health, and of preventing the introduction of disease from abroad. Its efforts not having been entirely successful, its powers were enlarged in 1504, so as to grant it 'the power of life and death over those who violated the regulations for health.' No appeal was allowed from the sentence of this tribunal."—North Am. Rev., Vol. 91, P. 442.

During the plague in London in 1665, the magistrates consulted to devise means for stopping, or at least impeding the progress of the disease, and the result of their deliberations was a series of orders which appointed commissioners, searchers, surgeons, and buriers, to each district, acting under certain regulations, and which directed the provisions of an old act of parliament to be in force, for shutting up all such houses as appeared to the proper officers to contain any infected person, and every house which was visited, as it was called, was by those orders marked with a red cross of a foot long in the middle of the door, evident to be seen. See Littell's Living

Age, Vol. 22, P. 267. The act of parliament mentioned was passed in 1603.

The law has not yet conferred upon boards of health the old time custom of the Samnites of examining the conduct of the young people or of holding general inquisition for the discovery of venereal disease.

The board of health has no legislative power; it may under delegated power enact rules and regulations for the protection and preservation of the public health, but must steer clear of combining legislative with executive power, in other words such board cannot give itself power and then execute the power.

I have been unable to lay my finger upon any statute authorizing or even sanctioning by inference the procedure here adopted. I recognize the need of full power to stay the spread of epidemic diseases and I find such power in the statute, but I cannot find there that, by the mere determination that a disease is dangerous and communicable, there follows power at the will of a health officer to refuse isolation in the home by quarantine and placard notice thereof and to commit the diseased person to a hospital.

If the law conferred the power exercised by the health officer in this business, then children with any one of the numerous diseases now declared dangerous and communicable could be taken from their homes and sent to a hospital.

Act No. 272, Public Acts 1919 (enacted since the acts complained of), expressly relates to venereal diseases. If the power existed before this law then it was a general power and still exists and covers all diseases determined as dangerous and communicable, and the law of 1919 has neither added to nor taken from such power.

And right here arises the question of whether the exercise of the power by the defendant officer in refusing this girl right of quarantine in her own home was an unreasonable act and not warranted by menace to the public health, and her confinement in the detention hospital an unlawful restraint of her person.

This presented an issue of fact for the jury and the trial judge was in error in directing a verdict for defendant.

The restraint over the person of plaintiff being made to appear the burden was upon defendant to justify the same under the authority of some law. *It would be an intolerable interference by way of officious meddling for health officers to assert and then assume the power of making physical examination of girls at will for venereal disease.*

The law of 1919 points out methods for bringing venereal cases to the attention of health officers, but does not sanction what plaintiff claims was done in this case, and surely the power of defendant was not more without law upon the subject than it is now with law.

I agree with my Brother that, if the health officer had power at all to reexamine plaintiff he had no right to exercise it without reasonable cause, such cause to precede examination and in no way to depend upon the result of examination. In any event the defendant

had no right to suspect and examine plaintiff so long as she had no accuser.

Moore, Bird and Stone J. H.

Concurred with Wiest J.

THE CONTROL OF VENEREAL DISEASE

Although numerous panaceas for the prevention and control of venereal disease have been suggested, none seem to have sufficient virtue to warrant general acceptance. During the war, committees were appointed by practically every military medical service, and various methods were tried on a large scale, but the methods applicable under military conditions, with perfect control, are not generally adapted to civilian life in which the individual has freedom.

About a year ago, the minister of health of Great Britain appointed a representative committee to inquire into certain aspects of the problem, particularly with a view to answering two questions: (1) What, in the present state of knowledge, are the most efficient medical measures for preventing these diseases, and (2) How far is it ethically justifiable to apply such measures? The committee has considered not only the medical measures involved but also the social aspects of venereal disease control; it felt that no purely medical measures could be successful in controlling these diseases. It held that the extension of knowledge as to the nature of the diseases and their consequences is of first importance. The community should be made to appreciate that:

(a) Promiscuous intercourse is the main cause of the prevalence of venereal disease.

(b) There is no absolute preventive except continence, and a single exposure may result in infection.

(c) A large number of the sufferers from venereal disease are innocent persons, especially women and children.

(d) Syphilis is a disease of great gravity, which, if not treated in its early stages, may have serious results, including affections of the circulatory system and of the nervous system, as, for example, general paralysis of the insane.

(e) Syphilis is transmissible by a mother to her children, and is a frequent cause of miscarriages, stillbirths, and deaths in early infancy, and, in children who survive, of mutilating deformities, deafness, blindness, mental disease and other defects.

(f) Gonorrhea is a more serious disease than is commonly believed, and, if not properly treated, may have serious after-consequences.

(g) Gonorrhea is a frequent cause of sterility and serious pelvic disease in women, and a cause of blindness in children born of women suffering from gonorrhea.

(h) The presence of these diseases in the community is a menace to the maintenance and advancement of the physical and intellectual standards of the race.

The medical measures seem to fall into two categories: those for preventing disease in persons exposed to infection and those for rendering noninfective and curing persons already diseased. The British committee was in thorough agreement with investigations made

elsewhere to the effect that the chance of failure for disinfection increases rapidly as the interval between the exposure and the application of the disinfectant lengthens. Disinfection within an hour, it is said, is generally successful. It was agreed that it is extremely difficult for a woman to disinfect herself, and that the prospects of success of disinfection in the case of a woman are greatly less than in the case of a man. After a thorough consideration of all the evidence available as to the value of disinfection, the committee concluded that the community in which there has been efficient instruction, and in which such control and influences as have been mentioned obtain, may reasonably expect substantial results from prophylactic measures, although the actual results are often less favorable than has been claimed. The committee was especially insistent on the belief that there is no justification for putting obstacles in the way of individuals who desire to procure the necessary disinfectants, but added that the laws should be altered so as to permit a properly qualified pharmacist to sell such disinfectants in a form approved and with instructions for use approved by some competent authority. It added further its belief that the commercial advertisement of such disinfectants should be prohibited.

Instruction by competent physicians in charge of clinics was considered to be the best method for teaching the prevention of infection, and the committee agreed that money spent on a general system of providing facilities for self-disinfection would certainly be less profitable than money spent either on the treatment of disease or on those measures of education and improvement of social conditions referred to in the list already quoted.

The committee's opinion as to the treatment of venereal disease is enlightening, in view of similar observations which have been made in this country. "Speaking generally," says the report, "the general medical practitioner is not yet adequately equipped with the most advanced knowledge of venereal diseases and their treatment to enable him to deal competently with all the cases that come before him, and an improvement in medical education in regard to venereal disease is necessary." Further, the work of existing venereal disease clinics is of high value, and the system is one that ought to be encouraged, extended and improved. In this connection the committee points out that discontinuance of treatment is not so common as the general discussions seem to indicate, and that secrecy is highly desirable if patients are to be induced to attend the clinics and to continue treatment. "In the present state of public opinion," says the report, "any system of general compulsory notification of venereal disease would tend to concealment and would prove a backward step." The survey also led to the belief that the venereal diseases are declining at a substantial rate, as they were before the war, and that increased attention along the lines indicated will result in a still greater diminution of such cases.—*Jour. A. M. A.*, July 14, 1923.

GIVING MOST FOR A DOLLAR

Henry Ford, the automobile manufacturer, claims and his book proves, that the man who gives more for a dollar than any one else is bound to succeed. He believes that in creating an opportunity for men to become self supporting he has rendered the greatest possible service to humanity.

Twenty years ago, Henry Ford, the richest man in the world today, had not risen above the position of a small salaried bookkeeper. He, now, has the largest private income in the world, and his fortune is mounting at the rate of two and a half million per week.

What Ford says of business applies equally to the practice of medicine. Service is recognized in every line of endeavor.

PRACTICING CHIROPODY FROM THE COUNTY JAIL

The latest comes from Ohio where the Governor has sanctioned the practice of a Chiropractor while serving a jail sentence, imposed because the chiropractor was convicted of practicing without having been registered.

The facts according to assertions published in the daily press and confirmed by the Governor in a letter to the executive secretary of the Ohio State Medical Association are as follows:

An unlicensed chiropractor was convicted, sentenced to serve time in jail, and during his incarceration the father of an invalid child secured the sympathy of the Governor, thereby leading the Governor to make the following statement: "It is not my intention to interfere with the law in the case but if I were sheriff I not only would allow the father to bring the child to the jail for treatment but, if necessary, I would take the doctor to the home of the child that she may be treated."

The *Ohio State Medical Journal* publishes a letter signed by the Governor and offers the following comment:

"You ask where I was correctly quoted in the *Portsmouth Daily Times*. The quotation was substantially correct." In the Governor's letter, as published, it is also stated that he, the Governor, after failing to get in communication with the Secretary of the State Medical Board, conferred with the Attorney General on the subject "and after both of us heard the father's story we agreed that each of us would call the

sheriff at Portsmouth and say to him substantially what the Portsmouth *Daily Times* quoted me as saying."

The Executive Secretary of the State Medical Association also wrote the Attorney General for a statement of his connection with the affair. In his reply the Attorney General submitted the following:

"I was called to the Governor's office by the Governor personally, he having fully made up his mind either to pardon the chiropractor involved in this case or to permit the patient to be taken to the jail, and consulted me concerning his legal rights. I first stated that it would seem inconsistent to permit a child to be taken to the county jail for treatment, which would be permitting the same violation of law for which the chiropractor was then confined. The Governor stated that if I would prepare the papers he would pardon this 'doctor' every five minutes, if necessary. The Governor further stated that if he were sheriff he would permit the child to be brought to the jail or the 'doctor' to be taken to its home. I did suggest that if he were going to do either, it would certainly be much better to do the latter. Later in the afternoon the Governor again called me and stated that he had talked to the sheriff over the phone and advised that he permit the child to be taken to the jail for treatments, and asked me to call the sheriff and approve what he had done. I then called the sheriff and he explained to me what the Governor had said, which was in substance as quoted in the papers. I thereupon stated that if that was the Governor's desire in the matter, that it was not my intention to interfere with the Governor's order."

One stands aghast when informed that a Governor of a state aids and abets a convicted criminal in the further practice of his criminal act. We do not know the Governor aside from his attitude toward this particular matter—he may be a good Governor so far as he has intelligence, but this behavior indicates a definite violation of his oath of office, for Governors take oath that they will uphold the constitution and laws of the state.

To the laity this action by the Governor would be ground for impeachment proceedings. It would be interesting to know how the courts would construe the purpose of a Governor to nullify their findings. If the Governor will violate his oath of office in favor of one illegal practitioner, why not ten or a hundred, provided emotional parents appeal for executive interference!

Turning to the statement of the Attorney General, we wonder at his evident avoidance of the direct issue and his puerile assent to wrong doing.

This instance has as a matter of course greatly encouraged those chiropractors who defy the law in Ohio.

Fortunately, Ohio has other types of citizens.

A HUMORIST'S WARNING TO LAYMEN

The *Moniteur Medical*, a widely read French periodical, in reporting the case of a woman who committed suicide in despair after reading medical text-books dealing with her malady, warns laymen to avoid the reading of such books as a menace greater than their maladies. Taking this as his text, G. de la Fouchardiere, France's leading humorous writer and Molièresque, in his delight in poking fun at the expense of the medical profession, contributes the following amusing comment in a Paris newspaper:

"A lady, aged thirty-seven, suffered from rheumatism. She began to read medical text-books. She read all she could about her ailment. She read such terrible things that she came to the conclusion that it would be as well to end the agony at once. She thereupon committed suicide. The *Moniteur Medical* gives the lady the following advice, the only fault of which is that it comes a trifle late: 'Do not read medical books. Meet your ailments with good humor and resignation. When you feel depressed, try to find some one unhappier than yourself and seek to relieve him a little.'

"Of all dangerous books, the most dangerous are medical books. Philosophic books lead you to philosophic speculation and thereby to bewilderment. Pornographic books destroy your moral sense. Novels of love and adventure lead to adventure and love, that is, to the worst disillusionment. If you read poetry, you are tempted to write verse, which is highly dangerous to your mental equilibrium. But all this is nothing. Medical books lead to loss of life, which is the only boon on earth, or at least a boon without which all the others would be useless. For medical books are full of ailments which you can contract, some through contagion, some through imagination, but which can all be contracted through reading. The moment you have read the description of a disease you feel the symptoms more surely than if you had been guided only by your unconscious reactions. Just as you yawn when you see someone else yawn, just as you feel the need to scratch yourself when you see the man in the Cadum Soap advertisement scratching himself, in the same way you feel a pain in the kidneys, in the liver or in the stomach, the moment you learn, in however didactic a manner, the effects of a lesion of the kidneys, stomach or liver. A specialist once told me of the case of an ataxic who contracted syphilis from a book. I cannot say if the specialist was chaffing me, or if the patient, through modesty, was chaffing the specialist. But the case is not altogether impossible.

"Catching diseases from books isn't bad, but it becomes dangerous when, having contracted them, you try to cure them. After having read a variety of medical books you come to the point where you consult a variety of doctors, who cannot possibly agree on your case (as nothing ails you), but who, from professional necessity, are compelled to find something wrong with you, otherwise they will not earn the fee they exact for ministering to you. Having consulted a variety of doctors, you try a variety of remedies.

There are many of these on the fourth page of any newspaper, but you can never reach the bottom of the page alive. The *Moniteur Medical* expressly advises you to avoid medical books; it also expressly advises you to avoid doctors. In order to keep well, says this periodical, which thereby injures the profession, minister to those more ill than yourself. This is the formula of Molière. For, if it is dangerous to find ailments in yourself, it is quite harmless to discover them in others."—*Am. Medicine*.

DANCE MARATHONS

The "dance marathon" disease has been epidemic lately. The symptoms of the disease are a sudden loss of mentality with resulting loss of the power to control the feet which thereupon begin to move up and down, back and forth, until exhaustion ensues. The disease affects pairs, male and female. It is caused apparently by the sound of clinking shekels, associated with the strains of an orchestral din. The results are chiefly a loss of leather from the patients' shoes; the mental results are nil, for where nothing has existed, no change can occur.—*Hygeia*.

SCORES THE SHEPPARD-TOWNER LAW

Although Ohio has accepted the provisions of the Sheppard-Towner act, Dr. Robert Carothers, President of the Ohio State Medical Association, severely criticizes this law in his annual address in these words:

"Then Congress for purely political reasons, it is said, passed the Sheppard-Towner bill, and the Federal and State government propose going into the profession of midwifery. For mob psychology the Dempsey-Carpentier fight was a Sunday school picnic by comparison.

"More centralization of power, another bureau added to this already fast approaching bureaucratic government, more government employees. More is the pity, and so entirely unnecessary."

FOOD, CLOTHING, PLUMBING SHOULD BE FREE TO THE PUBLIC AS WELL AS MEDICINE

An editorial in the *Indiana Medical Journal* says:

"Health may be an asset of the state that should be protected by the state, but why is it necessary to furnish free medical and surgical services to protect health any more than to furnish free food, clothes, or good plumbing, for they likewise contribute to good health. Is there any reason why any honest and useful vocation should be legislated out of business or put entirely under the control of municipal, state or federal government? Isn't it about time that we analyze this question of socializing medicine and decide in a definite manner whether we desire to give it encouragement and assistance or not? Let us get away from the discussion of pure sentiment and discuss facts in their relation to the body politic, and incidentally the subject is worth considering by every doctor who depends upon his vocation for a living and is not particularly keen to be numbered among an army of municipal,

state, or federal office holders, with a bureaucratic position that to say the least is always insecure and dependent upon the vagaries of politics or other circumstances."

THE FAMILY DOCTOR

(From the *New York Tribune*)

It is pleasant to hear a physician with a specialty praise the old-fashioned family doctor, the "general practitioner" who has largely given way in the city to the specialist, but in the country is, as ever, the present help in time of trouble. For him there are gratitude and affection that need no analysis. He deserves all the good things Dr. Frankwood E. Williams said of him at the State medical convention.

He may be old-fashioned, but he is as able a psychologist as the most modern, in the view of Dr. Williams, medical director of the National Committee for Mental Hygiene. The best remedy in his medicine chest is common sense, which, tactfully applied, is a famous way of mental healing. His best dose is optimism. That is what all four patients out of five need, if Dr. Williams is right in his diagnosis. Only the fifth patient needs the specialist, and the family doctor in general may be relied upon to take such cases to consultation.

There is no danger of disparaging the skill and knowledge of the physicians and surgeons who are masters in specific fields; but it is good to be reassured that the family doctor, until lately the backbone of the profession, is by no means obsolete.

LIFE AND PROBLEMS UNDER A MEDICAL UTOPIA *

Under the above title, Carr in satire, has portrayed what we are coming to when the world is controlled by the doctors. All, of both sexes, on reaching the marriageable age will undergo strict and thorough medical examination. This will include not only the life-history of the individual but his or her ancestry so far as it can be traced. Ultimately, it will come about that every one will have a full pedigree from the time of the establishment of the Utopia. Those who are found fit will be given certificates, licensing them to marry, or at least to propagate their kind. Whether legal marriage will be required in Utopia is a matter left somewhat indefinite. All who cannot pass the examination will be sterilized so that they cannot beget children either in or outside of matrimony. The young couple, having passed these preliminary medical ordeals, will enter the marriage state. As soon as the wife becomes pregnant she will notify the proper authorities and she will be compelled to submit to an examination as frequently as the medical officer may determine. The expectant mother will be relieved of all burdens in the way of work for a certain period before confinement. When the day set by the medical officer for confinement arrives the woman will go to a lying-in hospital. Artificial labor will be induced under proper aseptic precautions. The birth of the child will

*London Lancet, May 19, 1923.

be duly registered and the mother before she leaves the hospital will be instructed in all particulars concerning breast-feeding. She will be required to take the infant every week to the hospital or dispensary in order that it may be weighed, its progress carefully watched, and its feeding superintended. When the child reaches the school age, all these procedures will be turned over to the school authorities. After her first confinement the mother will be carefully examined and notified whether or not she will be permitted to bear another child. How succeeding pregnancies are to be avoided is left somewhat uncertain. The couple may be advised to practice absolute and continuous continence. The author says that some advise this, but they are usually elderly folk who have forgotten that they ever had sex instincts or worthy ladies who perhaps never developed them or ecclesiastically minded celibates who are apparently anxious to make vicarious atonement for their own infertility by encouraging the highest possible fecundity in others. As a substitute for absolute continence various mechanical preventives or contraceptives may be furnished the married couple.

When the child reaches a certain age it will be carried to the surgeon, and if a boy will be circumcised, while in both sexes the appendix will be removed. The author is quite certain that at some specific age the entire large intestine will be removed from all. He justifies this procedure by high authority. He cites Metchnikoff, who wrote: "It is no longer rash to say that not only the rudimentary appendix and the cecum but the whole of the large intestine are superfluous and that their removal would be attended with happy results." Dr. Barclay Smith writes: "The statement is perhaps a bold one, but I am convinced that the large intestine is a practically useless incumbrance to man." Every year this opinion apparently grows and recently Sir Arbuthnot Lane informs us that he has performed, with complete success, colectomy in early childhood. "Since it has been discovered that the large intestine is a cesspool, certainly everybody should get rid of the cesspool which he carries around with him, as well as that which he formerly built in his back yard."

The next thing is to attend to the teeth. Since recent experiences have shown that pyorrhea is a constant menace to the health and a frequent cause of ill health, all the teeth of the second set should be drawn soon after their appearance and artificial ivories substituted. Of course, every child some time early in life will be not only vaccinated, but treated with a multivalent extract of all the organs in the body. The eyesight will be looked after and spectacles will be in great demand. The most serious thing, however, will be to follow the advice of Freud and practice psychotherapy upon all. Carr says, how marvelous, for instance, to discover, owing to a patient getting blocked on the simple word "long" that all her troubles were due to her "longing" for a certain young man, whose offer of marriage she had rejected in haste, afterwards repenting at leisure of her refusal! How instructive to read that a young man who has been stammering for several years is easily and perfectly cured when

it is realized that his difficulty in articulation was worse for words commencing with "K" and that this was the first letter of the name of a former sweetheart who had jilted him in favor of another man! Indeed, in Utopia the demand for psychotherapy will be unlimited.

Carr's description of how venereal diseases are to be handled is exceedingly interesting. Freudian teaching indicates that if we suppress our sexual desires we are going to suffer from this action sooner or later. It is highly desirable, therefore, that all sexual enticements should be gratified. Every young man will be required to carry with him constantly a prophylactic packet. It is true that he will be advised to practice continence, but it will be recognized that the sexual appetite is strong and that any young man may meet with temptations which cannot resist, or at least he will not.

After giving us several pages of interesting satire the author drops into common sense and writes: "Probably the greatest danger under a medical autocracy would be that of loss of freedom. A distinguished ecclesiastic once caused quite a grave scandal by saying that he would rather see England free than England sober. I think he was right, and I believe it would be equally correct to say that we would rather see England free than England perfectly healthy. A despotism may be theoretically the best form of government if the ideal despot can be found, but he never can be, for human nature is so constituted that the mere fact of entrusting absolute power to an individual or a group of individuals soon renders them unfit to exercise that power over their fellow creatures. A medical despotism would be no exception to the rule. It is no sufficient answer to say that medical government would be necessarily in the best interests of the governed. A man's conception of what is best for his fellows may be absolutely disinterested and honest, his intentions may be wise and unselfish, but his conclusions and decisions may be erroneous, although the more convinced he is that he doing right and that he is actuated by the highest and noblest principles, the more likely is he to become a tyrant. The exercise of uncontrolled power is almost always a cause of demoralization, and conscientiousness has to account for some of the darkest chapters of human history."

We have no fear that medical despotism, as portrayed in satire by Carr, will ever prevail on earth. Even if invested with absolute autocracy the medical profession is too sensible to lead the world so far astray.—*J. of L. & Clinical Medicine.*

THE FEMININE BARRAGE AGAINST MEDICAL MEN

Physicians are learning "day by day in every way" that they are being talked about, sometimes lied about, and frequently slandered, not because of their morals but because of their inability to cure disease. Consequently, when two or more women are gathered together, for justifiable purposes, including committee meetings, social functions, bridge parties, afternoon teas, and almost any form of non-intellectual exercise,

they commonly begin to criticize the doctors. They do this thoughtlessly, naturally, because there is not one woman in a hundred that knows anything about a doctor's life or what he has to go through in order to prepare himself for his life work or to carry on his practice successfully, professionally, and ethically. Then, too, a good many of these critics have a pet theory, or a pet healer whom they esteem, not for his educational qualifications or his preparation for the healing art, but for his personality, perhaps, and not infrequently because some other woman has said that such and such a healer can cure disease when the doctors can't.

Doctors openly admit that temporarily there is a wave of health going over the country in which there is less preventable disease, perhaps less organic disease, than has been known for many years; and this wave may last for one or two years longer before it recedes and some form of physical or mental disorder resumes its scourge. There is no question, too, that among the doctors there has been an effort to improve the education of the people as to the care of themselves. Our various journals devoted to health are doing everything they can to enlighten the people in the common ailments of life, their prevention, care, and cure. This doubtless has contributed somewhat to the depreciation of the medical man's business; and other questions, mainly financial, have decreased his yearly income. But for all that there is no reason why he should be attacked by a thoughtless band, when if they did but stop to think for a moment they would realize what a medical man has to undergo and how much self-sacrifice and time he gives to the care of the impoverished and indigent sick. This condition does not prevail in the cities alone, but is widespread. The man in the country does a certain amount of charity work; but the man in the town and the city is called upon for more of his medical efforts. He does a good deal in the various traveling clinics that go over the country. He does a great deal of free work in the small hospital; and in the larger cities he does a tremendous amount of work either on the staff of a hospital or the board of managers on medical attendance for many charitable organizations. He does surgery, obstetrics, internal medicine, and many of the special branches of work for nothing; and the time has now come when the privilege is much abused. People who can pay a physician patronize a clinic managed by the State or by the city, and get their medical attention and operations without cost, and they think they are clever in so doing. Consequently it has been necessary to make an investigation of the relationship of the doctor to the city and county hospital as to whether they are dealing fairly with the medical man and his patients; whether they are not accepting patients in general hospitals maintained by the State or county that should be classed among the pay-patients of the physician.

Of course, the doctor began many many centuries ago to take care of the sick; and during that time there was more or less variation in the healing art, from the copper-and-zinc tractor back to mesmerism, the bone-setter, and many other almost inconceivable

and absurd theories which have long been lost except as they are recorded in history. But from time immemorial the doctor has worked for the poor and the needy because he looked on it as a privilege, as a part of his duty to his fellow-men. And now when he comes to the present decade he is handicapped by the many cults that have sprung into existence, composed largely of the uneducated classes, who dare to deal with human life and its miseries. The solution of this problem is not an easy one. You cannot stop people from talking, from slandering, and from thoughtlessness because the majority of people are on the borderline. They are able to think only about so far and no farther because, if they try to go beyond a certain point, it strains their poor brains. Consequently, the doctor must let this traffic in human ills go on until it winds itself up into a knot and until the people have some realization and some appreciation of what a doctor's life means: what it means to compensate him, what it means to pay their bills promptly, and to encourage him in his efforts to acquire further knowledge in order to give them better care. In the meantime the surgeon and the physician must be more careful in their examinations, and must take into account the personal equation of each individual and not minimize the pet complaints, but rather seek the cause and treat the patient in order to remove the splinter in his mind or foot, adopt the optimism of his antagonist.

JOURNAL-LANCET.

MASS OF NEW LAWS PROVES TENDENCY TOWARD "TOO MUCH GOVERNMENT"

When John Citizen, U. S. A., lifts his tax-harrassed brow, blinks, clears his throat, and blandly remarks: "So?" it is indicative that he has heard of new triple-compound fractures of law-making records.

While John is a patient, good-natured fellow, ever mindful of the rights, well-being and happiness of his fellow men, he has become somewhat skeptical about the trend in government. This era of super-legislation, bureaucratic super-control and super tax-bills has just about reached the intolerant stage for John.

Just recently, John received another jolt. The National Budget Committee has informed him that Congress and the 48 State Legislatures enacted 4,000 new bills in the past year. This Committee also told him that more than 200,000 new laws and ordinances were written on the statute books in the various political subdivisions of the United States, making a grand total of more than 2,000,000 laws and regulations.

Six hundred and fifty large volumes are required annually to record the interpretation of these laws by courts of last resort. This is not taking into account the much larger number required for the rulings of courts of intermediary and lower jurisdiction.

If it were possible for John to read one new law each minute—for instance, one like the federal income tax law—and he spent eight hours each day at his task, Sundays and holidays included, the end of the year would find John with some 25,000 unread laws.

Too, John is becoming somewhat concerned over the

increased activities of Benevolent Excursionists into the Elysian fields of Idealism.

Senator A. O. Stanley, of Kentucky, told John some mighty straightforward things about this trend, in a recent public address.

"You cannot milk a cow today," Senator Stanley declared, "without having a federal inspector at your heels. A babe cannot be born nor a man buried without federal aid. Under the present system, a federal bureau at Washington is all-powerful in almost everything.

"I believe that the citizens are becoming tired of this," he continued. "I believe there is a distinct movement among all conservative thinking men of all parties, to knock out this pernicious system of inquisitorial government and go back to the faith of our fathers, under which this country was developed.

"America was made because the men of Anglo-Saxon blood understood local self-government. They were able to take the rifles and axes and coonskin caps and go out into the wilderness and set up their own local government without the aid of a federal bureau, and until we return local self-government to the public, we are not going to continue to prosper and develop."

Under the caption of "Another Bureau Blossoms," the Akron Beacon-Journal commenting on the Shepard-Towner maternity act says: "Another new bureaucratic craft takes to the waters and anyone who questions that the port of destination is not perfect humanity, will be sternly silenced by being told that he does not believe in American Womanhood. It is just possible he may believe very much in American Womanhood—the kind built by the home and the church and in which the old family doctor, the minister and a little common sense had something to do in producing babies, all of whom were not congenital idiots, and all of whose mothers did not die of neglect. But that will not do now. Our American Womanhood is wholly defective unless it is created by statute or at least guided and directed by state and federal bureaus.

"Once a traveler in North Carolina alighted from his horse to help an old woman fight a forest fire. His clothing was soon ablaze and the old lady choked with smoke, made frantic signs at him. 'My good woman,' said he, 'why do you object?' 'I am not objectin', sir, I'm a tellin' you somethin'.' Like the old lady, we are not objecting. It may be we are telling something which will be perfectly apparent a few years hence. We would also suggest one thing more. The next step is to have another government bureau educate the children. The Sterling-Towner bill is on the way. A few men kept it from coming before the last congress, because had it come out on the floor, no argument, no amount of reason could have prevented its passage. The next congress will pass it in an hour if it gets before the house, and then we shall have the fine old Prussian system of education, the product of which will never object to the states being called provinces and which in three generations will consider the government just as sacred and inerrant as ever did the subjects of a Hohenzollern."

Even Bureaucratic Germany is awakening. A recent Associated Press Dispatch from Berlin informed

John that "The public is tired of top-heavy bureaus and their burdensome and expensive systems. It has been regulated and controlled to a point where its patience is exhausted. Everything has been under control of some sort of municipal or government bureau. Housing commissions have harassed and annoyed Germans high and low until they are clamoring for release from bureaucratic control. Graft has entered into the workings of many housing commissions with the result that they operate against the interests of the very persons they were designed to protect, and play into the hands of profiteers."

John Citizen, U. S. A., is thinking; some day he is going to put his big fist down on the whole paternalistic program.

OHIO, M. J.

DO YOU KNOW—

That Hippocrates, 400 B. C., ordered during the pestilence at Athens aromatic fumigation and large fires in the streets?

That in Homer's Odyssey reference is made to Ulysses purifying his house with burning sulphur?

That the Romans, amidst their military operations, found time to construct the "Cloaca Maxima" some 2,400 years ago, which not only served for the removal of refuse, but also helped to drain many of the marshes, and constitutes the principal sewer of modern Rome?

That at one time Rome had 14 large and 20 small aqueducts, some of which carried the water from a distance of 50 kilometers?

That during the reign of Tiberius and Nero the *per capita* supply of water was over 1,400 liters a day?

That in Rome between 400 B. C. and 180 A. D. about 800 public baths were installed, among them the "Thermae Caracallæ," which alone accommodated 3,000 bathers at one time?

That in the fourteenth century (1345-1351) the "Oriental pest," or bubonic plague, claimed a toll in Germany of over a million lives?

That in Madrid not even a privy existed in 1760; it was customary to throw the ordure out of the windows at night, to be removed by the scavengers the next day?

That in Prussia, during the decade 1751-60, "688 out of every 1,000 children born perished before the age of ten, and that in 1761 50 per cent of the English population died before reaching the age of 20?"

That William Jenner, on May 14, 1776, inoculated a boy with virus taken from a pustule on the hand of a milkmaid who had been infected by her master's cow; on July 1 this boy was inoculated with smallpox virus without the slightest effect, as Jenner had predicted, and in spite of considerable opposition this method was slowly but surely adopted in all civilized countries?

That vaccination was introduced by Dr. Waterhouse in Boston in 1800, and by Seaman in New York in 1801?

¹From "Brief History of Hygiene and Sanitation," by Geo. M. Kober, M. D., in *Public Health Reports*, April 6, 1923, Washington, D. C.

LEGISLATION IN THE GENERAL ASSEMBLY

FINAL BULLETIN

Springfield, Illinois, July 8, 1923.

The program as outlined in December of last year by the Council of the Illinois Medical Society to the Legislative Committee was as follows:

1. Pass a Medical Practice Act.
2. Defeat the Sheppard-Towner and all other bills that provide Federal Subsidies.
3. Defeat all pernicious measures relative to medical matters.

Your committee desires to make the following report:

By the cooperation of practically every district in the State of Illinois, together with the untiring efforts of the Councilors and Officers of the State Medical Society, the above program was carried through in its entirety. It would be impossible to review the activities during the session regarding medical matters, but it is probably of interest to report that the Medical Practice Act hung by a slender thread for weeks, due to the pernicious activity of certain groups of non-medical practitioners. It will be recalled that our original bills were introduced in the House and Senate simultaneously. Terrific pressure was brought from all quarters against the two original bills which caused some radical amendments to be offered. When the Committee on Public Health, Hygiene and Sanitation in the Senate, to whom the bill was referred, had their final hearing there evolved from the Committee Senate Bill 439, which was our original bill with a few amendments added. This bill is now a law, effective July 1, 1923.

In affixing his signature, one hour before the final adjournment of the Illinois Legislature, to Senate Bill 439, the Medical Practice Act, Governor Small rendered to the physicians of the State of Illinois a service which entitles him to a lasting debt of gratitude. In face of the fact that he had received practically thirteen hundred messages of protest against this bill, and in face of this as well as other pressure that was brought to bear in an effort to obtain the coveted veto, Governor Small signed the Act. In a short conference that was accorded the Chairman of your Committee shortly afterwards he explained that at no time did he consider other than giving to the medical men of the State of Illinois a bill that they endorsed, but that the delay in signing the act was due entirely to his desire to read, substantially at least, every bill that he approved, and he complimented this bill in that he said he thought it was eminently fair to the Drugless Practitioner. The Governor by his act has definitely established his attitude toward the Ethical Medical Profession, and in thanking him in the name of the Illinois Medical Society I am quite positive that I was reflecting the wishes of the great majority of the ethical Physicians in the State of Illinois.

The Senate Committee in its wisdom (sic) evolved a Drugless Healer's Board under a bill known as Senate Bill 444 and by political trickery on the part

of some it was introduced on the floor of the Senate as a companion bill to 439.

When S. B. 439 was up for third reading it passed without a dissenting vote, receiving 39 ayes, whereas 26 was sufficient, then Senator Dunlap of Savoy moved to reconsider the vote. Obviously, a reconsideration of a vote so overwhelming in the affirmative could be charged to an ulterior purpose on the part of the senator.

The next bill called for consideration was S. B. 444, providing for a non-medical board, which was never endorsed by the Medical Society. It received but 21 affirmative votes and was lost. Senator Dunlap immediately moved a reconsideration for the next legislative day. With a great amount of lobbying during the recess period that evening and the next morning sufficient votes were gained to pass the bill, it receiving a bare majority of twenty-six. Thereupon Senator Dunlap withdrew his reconsideration of S. B. 439. At this time charges were being made by Senator Dunlap and others that the medical men had agreed to this bill—which was not a fact. In going to the House the Medical Practice Act was sent to the Judiciary Committee, as were all other bills which amended the Civil Administrative Code as did this one, and the Efficiency and Economy Committee did not see the merit claimed by the proponents of the bill and it was withheld in the Committee and was never taken on the floor of the House. The members of the Efficiency and Economy Committee are to be congratulated in seeing the political trick of attempting to crowd the bill on to the floor of the house with an endorsement it never received, as the lobbyists for the Non-medical Board were spreading the propaganda that the medical men agreed to this bill in a meeting held in the LaSalle Hotel in Chicago. Had the bill been sent to the floor of the House, either with or without endorsement by the Committee, it would have become debatable on the floor and in all probability would have confused the members of the House, who were totally ignorant of the bill, and it is very doubtful as to whether the Medical Practice Act would have received sufficient votes to have passed.

Charges and counter-charges on the floor during the last day regarding these two bills were severe. When S. B. 439 was called up for passage again a reconsideration was contemplated and the fate of the bill was uncertain until the closing hour of the House. No stone was left unturned by the lobbyists for the non-medical board.

It is evident that money was spent lavishly for S. B. 444. Upon their staff of attorneys working for this bill it is reported that a firm of lawyers that are defending the Governor was employed, and one of the members of this firm was active as a lobbyist on the floor of the Senate. An ex-Governor of the State of Illinois was sent to Springfield to look over the situation as to what could be done to save the bill. It is also reported that another ex-Governor and Congressman was asked to use his influence in having the Governor veto S. B. 439. Mr. Patterson, an attorney from Chicago, devoted a great deal of time for the non-medical board in an effort to have it passed. A

prominent lawyer of Springfield gave practically his entire time to the non-medical men's bill throughout the session. Another lawyer of Springfield was retained for his legal advice. It is not inconceivable to believe that the above list of prominent men necessarily were paid commensurate with their ability.

It is to be recalled that the Illinois State Medical Society employed but one lawyer, Mr. Harry E. Kelly of Chicago, who drew the original bill, and in practically its original form it has become a law.

The roll call on S. B. 439, the Medical Practice Act, in the House is of especial interest. The Chairman of your Committee kept an accurate account, with the aid of two assistants, of the original roll call, it receiving 62 votes, 77 being the constitutional majority. The absentees were then called. A great many Representatives do not vote on the first roll call so that it is not a rule that a bill receives its entire number of affirmative votes on the original roll call. On calling the absentees it swelled the affirmative number of votes to 84, which carried the bill, although one gentleman, a Mr. Hill from Decatur, voted aye in order to reconsider the vote in an effort to kill the bill. The Official Journal of the House will always show that this bill received 92 votes. A practice which can hardly be approved of is permitted in the legislature—of having men go to the clerk after the vote is announced and ask that their vote be recorded aye, or, in other words, there were quite a number of men who desired to see the bill defeated who strolled in to the clerk's desk, as much as an hour after the bill passed, and asked that their votes be recorded as in favor of the bill so that the vote would show accordingly. We, however, know each of these gentlemen and if they make an effort to capitalize the fact that they had supported the bill the truth of the matter will be promptly sent to their respective districts.

The Sheppard-Towner bill passed in the Senate and looked as if it had a fair chance to pass in the House, but just at the critical time New York, which was considered opposed to the bill, approved the measure and it became a law in that state. This, of course, changed the situation in the Illinois Legislature and it looked as if the bill would get away from us. However, when called, the Appropriation Committee killed the bill by a decisive vote of 25 to 4.

The physicians of the State of Illinois are to be congratulated upon getting the Medical Practice Bill passed at this session, in as much as many other good bills were defeated.

The Dentists lost their bill, which was very unfortunate. Going to third reading in the House and then recalled to second reading and amended and then receiving but 52 votes on the final roll call.

Also H. B. 386, which proposed to change the Civil Administrative Code to safeguard the Department of Registration and Education against Millerism was defeated in the Committee.

The following bills of more or less bearing upon medical matters and as to their final disposition is shown below:

S. B. 19, providing for the acceptance of a federal subsidy for venereal diseases—Defeated.

S. B. 37, imposing undue restrictions relative to narcotic drugs—Defeated.

S. B. 58, making venereal disease a ground for divorce—Passed.

S. B. 61, radically changing the present accepted method registering births and deaths—Defeated.

S. B. 175, Sheppard-Towner Act—Defeated.

S. B. 192, another federal subsidy regarding venereal disease—Defeated.

S. B. 209, appropriating a million dollars for tubercular cattle—Passed.

S. B. 243, Senator Glackin's maternity bill imposing a tax for said purpose—Defeated.

S. B. 242, appointing a health commissioner in each County of the State by the Governor—Defeated.

S. B. 289, a bill providing for penalties regarding adulterated or mis-branded drugs—Defeated.

S. B. 321, a bill regulating the practice of chiropody—Defeated.

S. B. 343, another maternity bill—Defeated.

S. B. 355, provides for an examining board of Chiropractors—Defeated.

S. B. 356, a Chiropractic measure—Defeated.

S. B. 377, provides payment for death of tubercular cattle (no bill was offered during the session for the State to pay for the death of tuberculosis of a human being)—Passed.

S. B. 379, makes the existence of a communicable venereal disease in either spouse a ground for divorce—Defeated.

S. B. 390, a similar measure to 379, providing for an examination for venereal diseases—Defeated.

S. B. 391, the Chiropractic measure—Defeated.

S. B. 398, a proposed tax for maternal purpose—Defeated.

S. B. 417, an appropriation for the instruction of hygiene and maternity—Defeated.

S. B. 439, the Medical Practice Act—Passed.

S. B. 444, provides for a non-medical board—Defeated.

S. B. 500, a County Health Officers' Department Bill—Defeated.

H. B. 38, making reciprocity mandatory for the practice of medicine—Defeated.

H. B. 155, prohibits the injection of paraffin for curing facial defects—Defeated.

H. B. 193, an Osteopathic bill—Defeated.

H. B. 225, creates a board of health in each county—Defeated.

H. B. 234, relating manner of holding medical examinations—Defeated.

H. B. 298, Federal Maternity bill—Defeated.

H. B. 306, radically changes quarantine rules—Defeated.

H. B. 307, prohibits a physician from being a health officer in this State—Defeated.

H. B. 308, amending quarantine regulations—Defeated.

H. B. 357, regarding registration of births and deaths—Defeated.

H. B. 379, appropriations for the education of crippled children. A most laudable measure—Passed.

H. B. 386, amending the Civil Administrative Code, changing present Department of Registration and Education duties—Defeated.

H. B. 454, a dental bill to include dental hygienists—Defeated.

H. B. 455, the Dental Practice Act—Defeated.

H. B. 488, regarding registration of births and deaths—Defeated.

H. B. 516, regarding tuberculosis sanitariums—Defeated.

H. B. 518, proposing the establishment of public hospitals—Defeated.

H. B. 520, changes the name of the Illinois Charitable Eye and Ear Infirmary to the Illinois Eye and Ear Infirmary—Passed.

H. B. 669, a Chiropractic measure—Defeated.

H. B. 670, provides for a Chiropractic Board—Defeated.

H. B. 828, a County Health Officer Bill—Defeated.

In rendering this final report your Legislative Committee, composed of Dr. C. E. Humiston of Chicago, Dr. W. H. Bowe, Jacksonville, and the Chairman at Springfield, wishes to acknowledge the splendid co-operation received from the Officers and Councilors of the Illinois Medical Society and practically all component societies. While the work of your committee has been extremely heavy during this session, nevertheless, without the help and support willingly offered from every County in the State the results as above outlined could not have been attained.

JOHN R. NEAL,

Chairman Legislative Committee, Illinois State Medical Society.

ILLINOIS' NEW MEDICAL PRACTICE ACT

(Senate Bill No. 439. Approved June 30, 1923.)

AN ACT to revise the law in relation to the practice of the treatment of human ailments for the better protection of the public health and to prescribe penalties for the violation hereof.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

SECTION 1. This Act shall be known as the Medical Practice Act.

§2. No person shall practice medicine, or any of its branches, or midwifery, or any system or method of treating human ailments without the use of drugs or medicines and without operative surgery, without a valid, existing license so to do.

§3. No person, except as otherwise provided in this Act, shall hereafter receive such a license unless he shall pass an examination of his qualifications therefor by and satisfactorily to the Department of Registration and Education, hereinafter referred to as the Department.

§4. Each applicant for such examination shall:

1. Make application for examination on blank forms prepared and furnished by the department;

2. Submit evidence under oath satisfactory to the department that:

(a) He is twenty-one years of age or over;

(b) He is of good moral character;

(c) He has the preliminary and professional education required by this Act;

3. Designate specifically the name, location and kind of professional school, college, or institution of which he is a graduate and the system or method of treatment under which he seeks, and will undertake, to practice;

4. Pay in advance to the department fees as follows:

(a) For the examination to practice medicine in all of its branches, or to treat human ailments without the use of drugs or medicines and without operative surgery, or for any special or supplemental examination, ten dollars;

(b) For the examination to practice midwifery, five dollars.

§5. Minimum standards of professional education to be enforced by the department in conducting examinations and issuing licenses shall be as follows:

1. For the practice of medicine in all of its branches:

(a) For an applicant who is graduate of a medical college before the passage of this Act, that such medical college at the time of his graduation required as a prerequisite to graduation a four years' course of instruction of not less than nine months each, in such medical college, or its equivalent, the time elapsing between the beginning of the first year and the ending of the fourth year having been not less than forty months, and which was reputable and in good standing in the judgment of the department; and prior to taking such examination said applicant must present proof that he has completed a four years' course of instruction in a high school or its equivalent as determined by an examination conducted by the department.

(b) For an applicant who is a graduate of a medical college after the passage of this Act, that such medical college at the time of his graduation required as a prerequisite to admission thereto a two years' course of instruction in a college of liberal arts, or its equivalent, or in such medical college, and at least a four years' course of instruction of not less than nine months each, in the treatment of human ailments in such medical college, or its equivalent, the time elapsing between the beginning of the first year and the ending of the fourth year in such medical college having been not less than forty months, and, in addition thereto, a course of training of not less than twelve months in a hospital, such college of liberal arts, medical college and hospital having been reputable and in good standing in the judgment of the department;

2. For the practice of any system or method of

treating human ailments without the use of drugs or medicines and without operative surgery:

(a) For an applicant who was a resident student and who is a graduate before July 1, 1926, of a professional school, college or institution which taught the system or method of treating human ailments, which he specifically designated in his application as the one he would undertake to practice, that such school, college or institution at the time of his graduation required as a prerequisite to graduation a three years' course of instruction of not less than six months each, the time elapsing between the beginning of the first year and the ending of the third year having been not less than twenty-two (22) months, and which was reputable and in good standing in the judgment of the department, and prior to taking said examination said applicant must present proof that he has completed a four years' course of instruction in high school, or its equivalent, as determined by an examination conducted by the Department.

(b) For an applicant who was a resident student and who is a graduate after July 1, 1926, of a professional school, college or institution which taught the system or method of treating human ailments which he specifically designated in his application as the one which he would undertake to practice, that such school, college or institution at the time of his graduation required as a prerequisite to admission thereto a four years' course of instruction in a high school, and as a prerequisite to graduation therefrom a four years' course of instruction in the treatment of human ailments, of not less than eight months each, in such professional school, college or institution, the time elapsing between the beginning of the first year and ending of the fourth year in such professional school, college or institution having been not less than thirty-six months, such high school and such school, college or institution having been reputable and in good standing in the judgment of the department;

3. For the practice of midwifery:

(a) Before July 1st, 1926, the examination of an applicant who desires to practice midwifery shall be of such a character as to determine the qualifications of the applicant to practice midwifery.

(b) For an applicant on or after July 1st, 1926, that he be a graduate of a college of midwifery which requires as a prerequisite to admission thereto, a one year's course of instruction in a high school or its equivalent, and required as a prerequisite to graduation, a six months' course of instruction in such college of midwifery; and for an applicant after July 1st, 1930, that he be a graduate of a college of midwifery which requires as a prerequisite to admission thereto, a one year's course of instruction in a high school or its equivalent, and required as a prerequisite to graduation, a one year's course in such college of midwifery the time actually spent under instruction in such college of midwifery to have been not less than twelve months; such high school or equivalent school and such college of midwifery having been in good standing in the judgment of the department.

§ 6. The course of instruction in high schools or other schools and colleges of liberal arts required by any medical college or professional school, college or institution, or required under any of the provisions of this Act, shall have been such as shall be satisfactory to the department, and shall be evidenced with respect to any application in the manner required by the department.

§ 7. All examinations provided for by this Act shall be conducted under rules and regulations prescribed from time to time by the department. Examinations shall be held not less frequently than four times every year, at times and places prescribed by the department, of which applicants shall be notified by the department in writing, and may be conducted wholly or in part in writing.

§ 8. Examination of applicants who seek to practice medicine in all of its branches shall embrace the subjects of which knowledge is generally required of candidates for the degree of doctor of medicine by reputable medical colleges in the United States, and shall be such in the judgment of the department as will determine the qualifications of applicants to practice medicine in all of its branches.

§ 9. Examinations of applicants who seek to practice any system or method of treating human ailments without the use of drugs or medicines and without operative surgery shall be the same as required of applicants who seek to practice medicine in all of its branches, excepting therefrom materia medica, therapeutics, surgery, obstetrics, and theory and practice, and shall be such in the judgment of the department as will determine the qualifications of the applicant to practice the particular system or method of treating human ailments without the use of drugs or medicines and without operative surgery which he specifically designated in his application as the one which he would undertake practice. If the applicant is a graduate of a professional school, college or institution in which obstetrics was taught to him as well in the judgment of the department as such subject was taught at the same time in medical colleges in the United States reputable and in good standing in the judgment of the department, he may upon his request be examined in obstetrics.

§ 10. Examination of applicants who seek to practice midwifery shall be such in the judgment of the department as will determine the qualifications of applicants to practice midwifery.

§ 11. Every applicant successfully passing his examinations shall be entitled to an appropriate license.

The following kinds of licenses shall be issued:

1. To practice medicine in all of its branches, to applicants passing examinations therefor;

2. To treat human ailments without the use of drugs or medicines and without operative surgery, to applicants passing examinations therefor, the applicant under such a license to be specifically restricted by the terms thereof to the practice of the system or method which he specifically designated in his application as the one which he would undertake to practice, but such of these applicants as shall have successfully passed the

examination in obstetrics under the requirements of section 9 of this Act shall also be specifically licensed in the same instrument to practice obstetrics.

3. To practice midwifery.

§ 12. Any person licensed under the provisions of this Act to practice, any system or method of treating human ailments without the use of drugs or medicines and without operative surgery shall be permitted to take the examination in materia medica, therapeutics, surgery, obstetrics, theory and practice and shall receive a license to practice medicine in all of its branches if he shall successfully pass such examination, upon proof of having successfully completed in a medical college or in any professional school, college or institution teaching any system or method of treating human ailments, reputable and in good standing in the judgment of the department, courses of instruction in materia medica, therapeutics, surgery, obstetrics, and theory and practice deemed by the department to be equal to the courses of instruction required in those subjects for admission to the examination for a license to practice medicine in all of its branches, together with proof of having completed (a) the two years' course of instruction in a college of liberal arts, or its equivalent, described in section 5 of this Act, and (b) a course of training of not less than twelve months in a hospital reputable and in good standing in the judgment of the department. But if such applicant for a license to practice medicine in all of its branches shall already have a license to practice obstetrics, he shall not be required to take an examination in that subject under the provisions of this section.

§ 12a. The requirements of section 12, in so far as they relate to the completion of a two years' course of instruction in a college of liberal arts or its equivalent, described in section 5 of this Act, shall be waived by the department where the applicant shows (a) that he is the holder of a valid license to treat human ailments without the use of drugs and medicines or without operative surgery, duly issued by the State of Illinois prior to the passage of this Act; and (b) that he has been engaged in the active practice of his profession for a period of not less than five (5) years prior to the passage of this Act; and (c) that he is a graduate of a professional school, college or institution which taught the treatment of human ailments by the system or method which he has followed in the practice of his profession for the period aforesaid and which was reputable and in good standing at the date of his graduation in the judgment of the department.

§ 13. The department may in its discretion issue a license without examination to any person who has been licensed to practice medicine, or to practice the treatment of human ailments according to any system or method, in any other state, territory, county, or province, upon the following conditions:

1. That the applicant is of good moral character;
2. That if the applicant seeks to practice medicine in all of its branches

(a) He is a graduate of a medical college, reputable

and in good standing at the date of his graduation in the judgment of the department;

(b) The requirements for a license to practice medicine in all of its branches in the particular state, territory, country or province in which he is licensed are deemed by the department to have been substantially equivalent to the requirements for a license to practice medicine in all of its branches in force in this State at the date of his license;

3. That if the applicant seeks to treat human ailments without the use of drugs or medicines and without operative surgery

(a) He is a graduate of a professional school, college or institution which taught the treatment of human ailments by the system or method which he specifically designated in his application as the one which he would undertake to practice, and which was reputable and in good standing at the date of his graduation in the judgment of the department;

(b) The requirements for his license to practice the treatment of human ailments without the use of drugs or medicines and without operative surgery according to the system or method which he specifically designated in his application as the one which he would undertake to practice, are deemed by the department to have been substantially equivalent to the requirements for a license to practice such system or method in force in this State at the date of his license.

4. That the state, territory, country, or province in which such applicant was licensed shall be then according alike privilege to persons so licensed under the authority of the laws of this State;

5. That the department may in its discretion issue a license without examination to any graduate of a professional school, college, or institution teaching the treatment of human ailments, reputable and in good standing in the judgment of the department, who has passed an examination for admission to the medical corps of the United States Army, or that of the United States Navy, or that of the United States Public Health Service, or who has passed any other examination deemed by the department to have been at least equal in all substantial respects to the examination required for admission to any such medical corps;

6. That applications for licenses without examination shall be filed with the department under oath on blank forms prepared and furnished by the department and shall set forth, and applicants therefor shall supply, such information respecting the life, education, professional practice, and moral character of applicants as the department may require to be filed for its use.

§ 14. Every person receiving a license under this Act shall pay to the department the following fees:

1. For a license to practice medicine in all of its branches, or for a license to practice any system or method of treatment human ailments without the use of drugs or medicines and without operative surgery, five dollars;

2. For a license to a person without examination, twenty-five dollars.

3. For a license to practice midwifery, three dollars.

§ 15. Every person holding a license under this Act, and every person holding a license or certificate under any prior Act in this State regulating the practice of medicine or the practice of the treatment of human ailments in any manner as a profession, shall have it recorded, if not already so recorded, in the office of the county clerk in every county in which he regularly practices, and the county clerk shall write or stamp thereon the date of such recording. Until such license or certificate shall be recorded the holder thereof shall not exercise any of the rights or privileges conferred therein. The county clerk shall keep in a book provided for that purpose, and open to public inspection, a complete list of such licenses and certificates heretofore or hereafter recorded by him and his predecessors in office, including the date of the issue of each license or certificate, the name of the person therein, and the date of the recording thereof.

§ 16. The Department may revoke or suspend the license or certificate of any person issued under this Act, or issued under any other Act in this State, to practice medicine, or to practice the treatment of human ailments in any manner, or to practice midwifery, or may refuse to grant a license under this Act, and may cause any license so revoked or suspended to be marked cancelled on the records of any County Clerk upon any of the following grounds:

1. Conviction of procuring or attempting or aiding to procure such an abortion as was made unlawful at the time under the provisions of the Criminal Code of this State;

2. Conviction of a felony;

3. Gross malpractice resulting in permanent injury or death of a patient;

4. Obtaining a fee, either directly or indirectly, either in money or in the form of anything else of value or in the form of a financial profit as personal compensation, or as compensation, charge, profit or gain for an employer or for any other person or persons, on the fraudulent representation that a manifestly incurable condition of sickness, disease or injury of any person can be permanently cured;

5. Habitual intemperance in the use of ardent spirits, narcotics or stimulants to such an extent as to incapacitate for performance of professional duties;

6. Holding one's self out to treat human ailments under any name other than his own, or the personation of any other physician;

7. Having been declared insane by a court of competent jurisdiction and not thereafter having been lawfully declared sane;

8. Employment of fraud, deception or any unlawful means in applying for or securing a license or certificate to practice the treatment of human ailments in any manner, or to practice, midwifery, or in passing an examination therefor, or wilful and fraudulent violation of the rules and regulations of the department governing examinations;

9. Holding one's self out to treat human ailments by making false statements, or by specifically designat-

ing any disease, or group of diseases and making false claims of one's skill, or of the efficacy or value of one's medicine, treatment or remedy therefor;

10. Professional connection or association with, or lending one's name to, another for the illegal practice by another of the treatment of human ailments as a business, or professional connection or association with any person, firm, or corporation holding himself, themselves, or itself out in any manner contrary to this Act.

(d) All proceedings to suspend or revoke a license on any of the foregoing grounds, except the ground numbered 8 (fraudulent grounds excepted), shall be commenced within three years next after such conviction or commission of any of the acts described herein, except as otherwise provided by law; but the time during which the holder of such license was without the State of Illinois shall not be included within such three years.

§ 17. (a) No license or certificate shall be suspended or revoked upon any of said grounds unless the holder thereof, or the applicant therefor, shall have been summoned to appear before the department by a citation signed by the director, and unless the person so summoned shall have been given a hearing before the department. No citation shall be issued except upon a sworn complaint, filed with the department, setting forth the particular act or acts charged against the person to be cited. Upon the filing of such sworn complaint if it sets forth grounds for which a license may be suspended or revoked under section sixteen of this Act, the director shall forthwith issue a citation containing a copy of it, and notifying such person of the time and place when and where a hearing of such charges shall be had, and commanding him to file his written answer thereto under oath within twenty days after the service on him of such citation, and notifying him that if he shall fail to file such answer default will be taken against him and his license or certificate may be suspended or revoked, as the case may be. In case such person shall fail to file his answer, having received such citation, the license of such person may in the discretion of the department be suspended or revoked, as the case may be, without a hearing, if the act or acts charged in such citation shall constitute sufficient grounds for such action under this Act. Such citation and any notice in such proceedings thereafter may be served by registered mail. The hearing may be had at a date not less than thirty days after the issue of such citation. At the hearing such person shall be accorded ample opportunity to present to the department in his defense, in person or by counsel, such statements, testimony, evidence and argument as he may desire to bring to its attention. The department, at its expense, shall provide a stenographer to take down the testimony and preserve a record of all proceedings at the hearing, and the department shall furnish a transcript of such testimony and proceedings to any person interested in such hearing upon payment therefor of five cents per one hundred words for the original and three cents per word for each copy thereof. The citation, answer and all other documents in the nature

of pleadings filed in the proceedings, and the transcript of testimony shall be the record thereof. Upon a showing of reasonable grounds the director may extend the time for filing such answer, may continue such hearing from time to time, and may within thirty days after any order of suspension or revocation of any license, upon the written recommendation of the committee of physicians of the department, set aside such order. The department may at any time after such suspension or revocation of any license restore it to the person affected without examination, upon the written recommendation of such committee.

(b) In all cases where the department suspends or revokes a license on the foregoing grounds, the Circuit Court of the county where the holder of such license resides or practices, and the Superior Court of Cook County if the holder of such license resides or practices there shall have power to review such suspension or revocation by writ of *certiorari* to the department. Such writ shall be issued by the clerk of such court upon *praecepe*. Service upon the director, assistant director, or superintendent of the department, shall be service on the department, or service thereof may be had upon said department by mailing notice of the commencement of the proceedings and the return day of the writ by registered mail to the office of department at least ten days before the return day of said writ. Such suit by writ of *certiorari* shall be commenced within twenty days of the receipt of the notice of the decision of the department by the person whose license shall be so suspended or revoked. In cases where such license has been suspended or revoked such court may, upon the filing of such suit by writ of *certiorari*, upon a hearing and proper showing of probable error in such action of the department, suspend the operation of such suspension or revocation during the pendency of such suit. The department shall not be required to certify the record of its proceedings to such court unless the person commencing the proceedings shall pay to the department the sum of 5 cents per 100 words of testimony taken before the department and 3 cents per 100 words of all other matters contained in said record. Exhibits shall be certified without cost.

(c) Judgments and orders of such court under this section, upon the application of the department or of the person who shall be affected, shall be reviewed only by the Supreme Court and only upon writ of error, which the Supreme Court, in its discretion, may order to issue only upon showing of probable error if applied for not later than the second day of the first term of the Supreme Court following the rendition of the judgment or order sought to be reviewed, but if the first day of said term is less than thirty days from the rendition of said judgment or order, then application for said writ of error may be made not later than the second day of the second term following rendition thereof, but not otherwise. The writ of error so issued shall operate as a supersedeas.

§ 18. The Department shall have the power to administer oaths, subpoena and examine witnesses, and

issue subpoenas duces tecum requiring the production of such books, papers, records and documents as may be evidence of any matter under inquiry before the department, in the same manner as witnesses are subpoenaed in equity cases in the Circuit Court. The department may upon its own initiative, and shall upon the written request of any person cited to appear before it in accordance with the provisions of section 16 of this Act, issue subpoenas for the attendance of such witnesses and the production of such books, papers, records and documents as it shall require in the transaction of its business, or as shall be designated in such request, but the person applying for such subpoenas shall advance the witness fees and fees for service of subpoenas provided for in suits pending in the Circuit Court. Service of such subpoenas shall be made by any sheriff or constable or other person in the same manner as in cases in such court. In case any person so served shall wilfully neglect or refuse to obey any such subpoena, or to testify, the director may at once file a petition in the Circuit Court of the county in which such hearing is to be heard, or has been attempted to be heard, or in the Circuit or Superior Court in Cook County, setting forth the facts of such wilful refusal or neglect, and accompanying said petition with a copy of the citation, and the answer, if one has been filed, together with a copy of the subpoena and the return of service thereon, and may apply for an order of court requiring such person to attend and testify, or produce books and papers, before the department, at a specific time and place. Any Circuit Court of the State or the Superior Court of Cook County, or any judge thereof, either in term time or vacation, upon such showing shall within proper judicial discretion order such person to appear and testify, or produce such books or papers, before the department at a time and place to be fixed by the court or judge. If such person shall wilfully fail or refuse to obey such order of the court or judge, without lawful excuse, the court shall punish him by fine or by imprisonment in the county jail, or by both such fine and imprisonment, as the nature of the case may require and may be lawful in cases of contempt of court. Every witness attending before the department at any hearing under this Act shall be entitled only to such compensation for his time and attendance and payment of traveling expenses as is or shall be allowed by law to witnesses attending such courts, which shall be paid by the person requiring, or by the department if requiring on its own initiative, such testimony or evidence. The department upon its own motion, or upon application of any person interested in any such hearing, may issue a *dedimus potestatem* directed to any commissioner, notary public, justice of the peace, or to any other officer authorized by law to administer oaths, to take depositions of persons whose testimony may be deemed by the department necessary in any such hearing. Such *dedimus potestatem* may issue to any part of Illinois, or to any other state, or any territory of the United States or to any foreign country. The department shall have the power to adopt reasonable rules to govern the issue of a *dedimus*

potestatem, the taking of such depositions and the payment of all expenses thereof.

§ 19. The Department shall have power and it shall be its duty

1. To make rules for establishing reasonable minimum standards of educational requirements to be observed by medical colleges, or by any professional school, college, or institution teaching any system or method of treating human ailments, or by colleges of midwifery, and to determine the reputability and good standing of all schools, colleges, and institutions now, heretofore, or hereafter existing;

2. To require satisfactory proof whether any medical college, or professional school, college, or institution teaching any system or method of treating human ailments, or any college of midwifery, enforced at any particular time in the past the standard of preliminary education requisite to admission thereto;

3. To determine the standard of literary or scientific colleges, high schools, seminaries, normal schools, preparatory schools, graded schools, and the like, in the discharge of its duties.

§ 20. The provisions of this Act shall not be so construed as to discriminate against any system or method of treating human ailments, or against any medical college, or any professional school, college or institution teaching any system or method of treating human ailments, on account of any such system or method which may be taught or emphasized in such medical college, or in such professional school, college or institution.

§ 21. Nothing in the Act shall be construed to prohibit any person from using any antiseptic prescribed by the Department of Public Health of the State for the prevention of the spread of communicable diseases, nor from using antidotes, or rendering any other service, in any case of emergency if without charge or compensation.

§ 22. All licenses and certificates heretofore legally issued by authority of law in this State permitting the holder thereof to practice medicine, or to treat human ailments in any other manner, or to practice midwifery, and valid and in full force and effect on the taking effect of this Act, shall have the same force and effect, and be subject to the same authority of the department to revoke or suspend them as licenses issued under this Act.

§ 23. If any section, subdivision, sentence or clause of this Act shall be held to be invalid or unconstitutional, such decision shall not affect the remaining parts of this Act.

§ 24. If any person shall hold himself out to the public as being engaged in the diagnosis or treatment of ailments of human beings; or shall suggest, recommend or prescribe any form of treatment for the palliation, relief or cure of any physical or mental ailment of any person with the intention of receiving therefor, either directly or indirectly, any fee, gift, or compensation whatsoever; or shall diagnose or attempt to diagnose, operate upon, profess to heal, prescribe for, or otherwise treat any ailment, or supposed ailment, of another; or shall maintain an office for

examination or treatment of persons afflicted or alleged or supposed to be afflicted, by any ailment; or shall attach the title Doctor, Physician, Surgeon, M. D., or any other word or abbreviation to his name, indicative that he is engaged in the treatment of human ailments as a business; and shall not then possess in full force and virtue a valid license issued by the authority of this State to practice the treatment of human ailments in any manner, he shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 25. Any person who shall practice medicine in any of its branches, or shall treat human ailments by any system or method, or shall practice midwifery, without a valid existing license under the laws of this State so to do, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 26. Any person who shall treat human ailments by the use of drugs, or medicines, or operative surgery and shall have only a license to treat human ailments without the use of drugs or medicines and without operative surgery, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 27. Any person who shall treat human ailments in any manner not constituting midwifery, and shall have only a license to practice midwifery, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

Neither section 26 or 27 shall apply to the use by midwives of such drug or medicine as is furnished by the State Department of Public Health for the prevention and not the treatment of ophthalmia neonatorum.

§ 28. Any person, not being licensed in this State to practice medicine in all of its branches, who shall hold himself out by any sign or advertisement, or by writing of any kind, to treat human ailments without therein attaching to his name a word or words indicating the system, method or kind of practice which he is lawfully licensed to pursue in this State, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 29. Any person, not being licensed in this State

to practice medicine in all of its branches, or not being licensed in this State specifically to practice midwifery either separately or in connection with the treatment of human ailments with the use of drugs or medicines and without operative surgery, who shall practice midwifery, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 30. Any person who shall obtain a fee, either directly or indirectly, either in money or in the form of anything else of value, or in the form of a financial profit either as personal compensation or as compensation, charge, profit, or gain for an employer, or any other person or persons, on the representation that he can permanently cure a manifestly incurable condition of sickness, disease or injury of any person, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 31. Any person who shall hold himself out to treat human ailments under any name other than his own, or by the personation of any physician, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 32. Any person who shall hold himself out to treat human ailments by any system or method of treatment other than that for which he holds a valid, existing license under the laws of this State, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by both such fine and imprisonment, in the discretion of the court.

§ 33. Any person who shall employ fraud or deception in applying for or securing a license under this Act, or in passing any examination therefor, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by confinement in the county jail not more than one year, or by such fine and imprisonment, in the discretion of the court.

§ 34. Any person who shall in connection with any application or examination before the department file, or attempt to file, with the department as his own, the diploma, license or certificate of another, shall be guilty of a felony and shall be punished therefor as the law shall prescribe at the time for forgery.

§ 35. Any person who shall wilfully swear or affirm falsely, or make or file any affidavit wilfully and cor-

ruptly, in filing or prosecuting his application for a license before the department, or in submitting any complaint, evidence or testimony to the department under the provisions of this Act, or under any rule or regulation of the department, shall be guilty of a felony and shall be punished therefor as the law shall prescribe at the time for perjury.

§ 36. All such fines shall inure to the benefit of the department.

§ 37. This Act shall not apply to dentists, pharmacists, optometrists, or other persons lawfully carrying on their particular profession or business under any valid existing Act of this State regulatory thereof, nor to persons rendering gratuitous services in cases of emergency, nor to persons treating human ailments by prayer or spiritual means as an exercise or enjoyment of religious freedom.

§ 38. The following Acts are hereby repealed: "An Act to regulate the practice of medicine in the State of Illinois and to repeal an Act therein named," approved April 24, 1899, and "An Act to revise the law relative to the practice of the Art of treating human ailments," approved June 25, 1917; and all Acts and parts of Acts in conflict or inconsistent herewith are hereby repealed.

§ 39. No proceedings to revoke or suspend any license shall abate by reason of the passage of this Act. And the department may revoke or suspend a license on account of any act or circumstance occurring before this Act shall take effect, if such act or circumstance is a ground for such revocation or suspension under the provisions of the law in effect at the time of such act or circumstance, and such act or circumstance if it occurred after this Act shall take effect would be a ground for such revocation or suspension under section 16 of this Act.

Approved June 30, 1923.

ON ENDOCRINE PROCESSES IN WOMAN.

The cyclic phenomena which characterize the uterine mucus membrane are a preparation for pregnancy. They synchronize with ovarian changes. The relation of the two cycles depends on the presence of some internal secretion, but nothing certain is known of the nature or the precise source of this secretion. The severity of menstruation has no relation to internal secretion; on the other hand, many forms of metrorrhagia, as well as puberty and climacteric flooding, stand in relation to it. In endometritis fungosa circulatory disturbances are present. In dysmenorrheal complaints almost invariably the cause lies in uterine incapacity, infantilism and narrowness of the cervical canal. These conditions cannot be influenced by organotherapy. Little is known as to the mode of action of climatic and balneological treatment in gynecological diseases caused by endocrine disturbances. The improvement often observed ought not to be considered as due to these influences alone. —Franz (*Klinische Wochenschrift*, May 6, 1922).

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A. T. Leipold.....	Moline	J. D. McCullough.....	Aurora
J. F. Lewis.....	Depue	E. R. May.....	Le Roy
D. W. LeGrand.....	East St. Louis	W. M. Miller.....	Rockford
L. J. Linder.....	East St. Louis	A. J. Markley.....	Belvidere
J. H. Long.....	East Moline	A. L. Mann.....	Elgin
H. J. Love.....	East Moline	E. L. Mullin.....	Manlius
Arthur E. Lord.....	Plano	J. C. Major.....	Joliet
R. G. Laing.....	Ellsworth	N. P. Merritt.....	Alton
R. N. Lane.....	Gibson City	C. W. Milligan.....	Springfield
J. G. Lamb.....	Cerro Gordo	Edgar G. Merwin.....	Highland
A. L. Langhorst.....	Elgin	E. G. Maloy.....	Highland
F. H. Langhorst.....	Elgin	W. F. Meyers.....	Coal Valley
H. C. Loveless.....	Griggsville	J. L. McCormack.....	Bone Gap
D. M. Littlejohn.....	Pana	P. McGinnis.....	Joliet
George E. Lyon.....	Decatur	J. Mitchell.....	Joliet
E. S. Murphy.....	Dixon	E. L. Mullin.....	Manlius
P. J. McDermott.....	Kewanee	B. V. Marquis.....	Buffalo Prairie
J. R. Marshall.....	Sheffield	H. E. Middleton.....	Alton
Wm. R. Mangum.....	Bridgeport	J. J. McShane.....	Springfield, Ill.
B. V. Marquis.....	Buffalo Prairie	C. M. Murrell.....	Matherville, Ill.
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G. P. Noren.....	Kewanee	B. Socoloff.....	Clifford
E. H. Oelke.....	Wheaton	H. L. Le Saulnier.....	Red Bud
Fred O'Hara.....	Springfield	Allen Salter.....	Lena
F. J. Otis.....	Moline	A. M. Shaw.....	Adrian
H. M. Orr.....	La Salle	O. M. Slater.....	Atwood
A. B. Ormsby.....	Murphysboro	A. L. Stuttle.....	Williamsville
J. W. Ovitz.....	Sycamore	O. W. Staib.....	Bartlett
John H. Oliver.....	Kewanee	F. B. Schroeder.....	Princeton
Mather Pfeiffenberger	Alton	C. R. Shearer.....	Alpha
Phebe Pearsall	Moline	M. H. Shipley.....	Rockford
R. P. Peairs.....	Bloomington	J. E. Scholes	Bradford
L. S. Pederson.....	Manhattan	E. F. Scheve.....	Mascoutah
Theodore S. Proxmire.....	Lake Forest	H. R. Sword.....	Milledgeville
J. A. Plumer.....	Trivoli	W. F. Scott.....	Maywood
F. A. Palmer.....	Morris	Clifford E. Smith.....	De Kalb
H. L. Pettit.....	Morrison	R. H. Smith.....	Eureka
W. B. Peck.....	Freeport	H. J. Schmid.....	Harvard
T. A. Pettepiece.....	Freeport	Joseph Semerak.....	Oak Park
H. F. Peterson.....	Dundee	J. W. Seids.....	Moline
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Ely E. Perisho.....	Streator	Hugo C. H. Schroeder.....	Granite City
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Arthur Parsons.....	Geneseo	G. A. Sihler.....	Litchfield
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C. E. Price.....	Robinson	Ray Sexton.....	Streator
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J. A. Poling.....	Freeport	W. E. Shallenberger.....	Canton
M. D. Pollock.....	Decatur	W. G. Sachse.....	Morris
A. E. Peterson.....	Toluca	Oliver B. Simon.....	Batavia
O. L. Pelton.....	Elgin	J. B. Schreiter.....	Savanna
O. L. Pelton, Jr.....	Elgin	W. E. Shastid.....	Pittsfield
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L. F. Robinson.....	Ullin	Chas. H. S. Starkel.....	Belleville
Wm. J. Rose.....	Columbia	E. E. Shelly.....	Freeport
M. E. Rose.....	Decatur	Harold Swanberg	Quincy
Lawrence A. Ryan.....	East St. Louis	H. E. Stephen.....	Joliet
M. M. Rickett.....	Ivesdale	A. Schreffler	Joliet
M. L. Rosensteil.....	Freeport	A. G. Sellards.....	Joliet
C. B. Ripley.....	Galesburg	Lena Stewart	Joliet
Henry Reis.....	Belleville	A. R. Steen.....	Joliet
H. H. Roth.....	Murphysboro	J. H. Siegel.....	Collinsville
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Tri-City Medical Society.....La Salle
 R. V. Thomas.....Manteno
 Chas. D. Thomas.....Peoria
 J. R. Thompson.....Bridgeport
 F. A. Turner.....Rockford
 A. Franklin Turner.....Arthur
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 E. P. Van Arsdale.....Beardstown
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 C. E. Wilkinson.....Danville
 C. E. Williams.....Danville
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 K. W. Wahlberg.....Moline
 O. D. Willstead.....Chatsworth
 J. W. Walton.....Homer
 H. M. Wolfe.....Taylorville
 A. W. Woods.....
 A. A. Wilson.....Davis
 W. C. Wood.....Decatur
 J. W. Walton.....Homer
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 F. W. Werner.....Joliet
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 Geo. Woodruff.....Joliet
 G. B. Wilcox.....Joliet
 Wm. Welch.....Joliet
 F. J. Welch.....Bloomington
 C. F. Wilhelmly.....East St. Louis
 M. R. Williamson.....Alton
 J. S. Wead.....Wyoming
 Alma T. Wead.....Wyoming
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 C. Martin Wood.....Decatur
 L. G. Wisner.....Herscher
 W. W. Williams.....Quincy
 J. D. Worrell.....Monmouth
 A. E. Williams.....Rock Island
 Glenn E. Wright.....Woodstock
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 E. C. Williams.....Downs
 C. E. Woodward.....Decatur
 E. Windmueller.....Woodstock
 G. T. Weber.....Olney

J. A. Weber.....Olney
 F. J. Weber.....Olney
 J. C. Weber.....Olney
 Winnebago County Medical Society.....Rockford
 R. S. Watson.....Joliet
 Carl H. Wilkinson.....De Kalb
 Will County Medical Society.....Joliet
 Rhoda Galloway Yolton.....Bloomington
 E. Young.....Mansfield
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 H. A. Zinser.....Washington
 H. S. Zimmerman.....Cameron

Note—Will County Medical Society contributed \$350.00 to the fund. Rock Island County Medical Society contributed \$100.00 to the fund. These two organizations are the only County Societies that as organizations have contributed to the fund.

The proposed campaign cannot be prosecuted without funds; it must be supported by popular subscription. It is hoped that every doctor will subscribe to this worthy cause. Serious disease diverted from the incompetent will result in the saving of thousands of lives and will prevent much permanent invalidism.

This campaign will achieve two great objectives: A gradual, but ultimate restoration of the medical profession to its merited place in the public sympathy and confidence and the inestimable benefits to humanity through the consequent prevention of disease and the preservation of life.

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MAKE CHECKS PAYABLE TO THE ILLINOIS STATE MEDICAL SOCIETY.

Name.....M. D.
 Street
 City..... County.....

Sign the above pledge card, make out a check payable to the Illinois State Medical Society and mail both in an envelope addressed as follows:

From

.....

ILLINOIS STATE MEDICAL SOCIETY,
 c/o Cashier, Sheridan Trust & Savings Bank,
 4738 Broadway,
 Chicago, Illinois."

25 E. Washington St.,
 Chicago, Ill. Lay Publicity Committee.

CHICAGO MEDICAL SOCIETY SUBSCRIBERS TO THE LAY EDUCATIONAL FUND OF THE ILLINOIS STATE MEDICAL SOCIETY

The list has been carefully checked to make sure of accuracy. If an error has crept in, kindly note same and forward to the Committee.

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Joseph Zabokrtsky

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Name.....M. D.
Street
CityCounty

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From

ILLINOIS STATE MEDICAL SOCIETY,
c/o Cashier, Sheridan Trust & Savings Bank,
4738 Broadway,
Chicago, Illinois."

Lay Publicity Committee, 25 E. Washington St.

THE THYROID AND ITS RELATION TO FEVER

The author's reasons for believing the phenomenon of fever to be nothing more than a prolonged state of hyperthyroidism are that (1) the thyroid gland is often congested in febrile conditions; (2) it often atrophies after prolonged fevers, pointing to exhaustion due to overactivity; (3) fever is a reaction to toxemia and the thyroid is noted for its detoxicating properties; (4) the characteristic features of fever, namely tachycardia, full bounding pulse, shallow respiration, erythema, diaphoresis, are all present in hyperthyroidism; (5) thyroid secretion has an autolytic action on toxic substances and an eliminative action by opening up excretory channels, those of the skin, kidney and gastrointestinal tract.—Ward (*Medical Record*, Sept. 21, 1921).

Correspondence

EDUCATING THE PUBLIC

Chicago, Ill., July 23, 1923.

To The Editor: Being in perfect accord with the lay educational idea, I hit upon the enclosed method of helping the good cause along. Should you believe this to be one good way of lay education pass the idea along so that others can create different reading matter for the public. Trusting the enclosed card will receive favorable consideration I am

Fraternally yours,

DR. H. ZACZECK.

The following educational data is on the back of Dr. Zaczeck's business card:

DO YOU REMEMBER WAY BACK WHEN—Everyone drank from the old tin cup that hung in the kitchen.

A roller towel in the washroom accommodated all comers.

Thousands died in Illinois every year from typhoid fever.

Children's diseases were regarded as the angry visitations of a Divine Providence.

Lots of folks thought that a buck eye in the pocket would prevent rheumatism.

Some mothers knew that a red flannel undershirt and a string of asafetida around the neck would protect children from diphtheria and other contagions.

Consumption was an incurable disease and folks who had it were advised to go west—which they usually did.

Patent medicines, consisting mostly of alcohol under a trick name, were advised and sold as a cure for everything from an ingrown toe nail to appendicitis. Milk was milk and nobody cared a hang where it came from.

Soothing syrup and pacifiers were standard home remedies for infants.

VISITATION OF CHILDREN IN FAMILY HOMES

STATE OF ILLINOIS

DEPARTMENT OF PUBLIC WELFARE

SPRINGFIELD

July 14, 1923.

Dr. Edward H. Ochsner,
President,
Illinois Medical Society,
Chicago, Illinois.

Referring to the attached copy of an Act relating to the "Visitation of Children in Family Homes":

This statute requires that report be made to

the Department of Public Welfare of all children placed in family homes by all child-caring associations and individuals. Our experience has been that many children have been placed by unauthorized agents and agencies. Through the more efficient supervision now afforded the Department of Public Welfare we trust that fewer children will become lost.

The attention of your Association is directed to this matter in the hope that members in Illinois will co-operate with the State in urging all persons placing children to report same to this Division.

Anything you or members of the society may do as an Association or individually, to promote interest in child welfare work will be greatly appreciated.

Yours very truly,

ROY JAMES BATTIS,

Superintendent of Child Welfare.

The following is now the law:

In force July 1, 1905—Amended July 1, 1923.

"Section 1. Be it enacted by the People of the State of Illinois represented in General Assembly: It shall be the duty of the superintendent or secretary of every association incorporated for the purpose of doing the business of caring for dependent, neglected or delinquent children to report to the State Board of Public Charities (Department of Public Welfare), on the last day of the months of March, June, September and December of each year, the name, age and sex of every child placed or replaced in a family home by such association or institution, together with the name and address of the family with which such child is placed; such quarterly reports to be made on such blanks as may be prescribed by the Board of Public Charities (Department of Public Welfare).

It shall be the duty of any circuit or county judge, county supervisor, overseer of the poor, or other public official, who shall place any child in any family home to report the same in like manner. It shall be the duty of every person, who may place any child not his or her own offspring in any family home to report the same in like manner."

"Section 2. The State Board of Public Charities (Department of Public Welfare) shall cause to be kept in its office a complete record of all children reported as aforesaid. This record shall not be a public record and it shall be unlawful for any agent of said board, or any other person, to disclose the name or address of any child so placed or of the family in which it may be placed."

"Section 6. It shall be the duty of the State Board of Public Charities (Department of Public Welfare) to furnish to the association, institution or individual that may have placed a child in a family home a copy of the report of the visit of said board, within thirty

(30) days after said child shall have been visited. If the visitor shall find that the child is cruelly treated or is not receiving suitable school advantages, or that for other good reason the home is not a suitable place for the child, it shall be the duty of the said Board of Public Charities (Department of Public Welfare) to notify forthwith the association, institution or individual that may have placed such child, furnishing them with a copy of such report. If said association, institution or individual shall not take suitable action in the case, within fifteen (15) days, the said State Board of Public Charities (Department of Public Welfare) may cause the said child to be removed from the home in which it had been placed, and may return the child to the said association, institution or individual, or to the circuit or county court in the county from which said child was originally received; and the actual and necessary expenses of such removal shall be paid by the agency that originally placed such child."

"Section 8. The agent of any association or institution, or any person who shall violate the provisions of section one (1) of this act, or any person who shall disclose the name or address of a child, or of the family in which it may be placed, in violation of section two (2) of this act, shall be guilty of a misdemeanor."

Section 6. Every holder of a license to conduct a "boarding home for children" under this Act shall maintain standards as follows:

1. The food provided the children must be clean, wholesome and suitable in amount and character to the needs of the children;
2. Children shall receive kind and humane treatment;
3. Provision must be made to adequately safeguard the health of the children;
4. Provision must be made for the children's education equivalent to that required by the public school laws of the State;
5. No practice or influence detrimental to the moral welfare of the children shall be permitted to exist on the premises;
6. The buildings and the equipment in which children are cared for must be sanitary and in no way endanger the lives or welfare of the inmates;
7. In the release of children from the "boarding home" due regard must be given the future health, comfort, education and welfare of the children so released;
8. The care, treatment and discipline of the children shall be as far as practicable equivalent to that given children of worthy parents in the average normal family.

Section 7. The Department of Public Welfare annually, or as often as may be advisable, shall visit and inspect each and every home licensed as herein provided. It shall make such inquiry and investigation as may be necessary to determine whether or not the holder of the license has enforced and is enforcing the standards provided for in section 6 of this Act. It shall be the duty of the holder of each license to

give the Department of Public Welfare all reasonable information and to afford it every reasonable facility for examining the records, inspecting the premises, and seeing the children.

Section 8. The Department of Public Welfare may promulgate reasonable rules and regulations relating to the enforcement of the provisions of this Act.

Section 9. The Department of Public Welfare, after due investigation of the facts, and after ten days' notice and hearing, may revoke any license if there has been a violation of any of the provisions of this Act.

The Department of Public Welfare shall note the order of revocation upon the record of the holder of the license, and shall notify such licensee of the revocation thereof.

Section 10. Any person who violates any of the provisions of this Act shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not more than three hundred dollars (\$300), or by imprisonment for not more than six (6) months, or both."

THYROID THERAPY IN CERTAIN HYPOTROPIC INFANTS

Oral administration of thyroid preparations produced astonishing improvement in a number of backward children of from four to ten months of age, who had been fed naturally or artificially and in whom, in spite of the absence of any alimentary or infectious causality, bodily and psychic relaxation was evidenced by hypotonia of the muscles. Of thirty-two such hypotonic infants treated, twenty-three had suffered from chronic insufficiency of food, nine from inherited syphilis. All but three gained weight rapidly after treatment was begun, nearly all increased in length, and cranial development and eruption of teeth was improved. Anorexia, eczema, adenoid vegetations were all favorably influenced, but most of all psychical development and muscle tonus. The initial dosage was usually one centigram, and the suitable dosage was ascertained by experience.—M. Maillet (*Bulletin de la Société de Pédiatrie de Paris*, 1922, p. 72).

SHAKESPEARE BROUGHT DOWN TO DATE

Shakespeare said: "We are such stuff as dreams are made of, and our little lives are rounded by a sleep." Scientists now say: We are such stuff as our glands have made us, and our little lives are rounded by a sheep." So while heredity helps to shape our destiny, there is an endocrinity that runs parallel with it.

JOHNNY TAKES THE CAKE

Careful Mother: "Johnny, if you eat any more cake, you'll bust."

Johnny: "Well, pass the cake and get outa the way."

Original Articles

NARCOTIC DRUG ADDICTION AND NARCOTIC LAWS*

ERNEST S. BISHOP, M.D., F.A.C.P.,

Clinical Professor of Medicine, Polyclinic Medical School; Consulting Physician, St. Mark's Hospital; Visiting Physician, St. Elizabeth's Hospital, etc.; Consulting Physician New York State Prison Commission; Member Committee on Narcotics, Judges of New York State; Member Committee on Narcotics, Section on Food and Drugs, American Public Health Association, etc.; Formerly Resident Physician to the Alcoholic, Narcotic and Prison Wards of Bellevue Hospital; Formerly Visiting Physician and President of the Medical Board, Workhouse Hospital, Department of Correction, New York City; Author of "The Narcotic Drug Problem," etc.

NEW YORK CITY.

The history of the relation and connection between narcotic drug addiction and narcotic laws is the history of the struggle for presentation and consideration between the scientific and clinical facts and literature of opiate drug addiction against the influence of various generalizing declarations from all sort of sources from the promoter of the advertised specific cure institution or treatment to the fanatic, "uplifter," political appointee or other promoter of a "panacea," medical, pseudo-medical, legislative, administrative, or otherwise.

I say "opiate drug addiction" because it is recognized by all who have made any sort of competent study of this matter, that cocaine, alcohol, the various coal-tars, hasheesh, etc., are conditions and problems of entirely different character.

It is a fundamental misfortune that many of those who have drafted narcotic laws, or who have periodically been in control of their interpretation and administration, or who have indulged in generalizing publicity, or advertised widely one or another particular method or routine of "cure" or "treatment" or "remedy," have lumped under a most undescriptive title of "Habit Forming Drugs," substances of widest dissimilarity of action and reaction.

It is one of the examples of the utter confusion and chaos into which *incompetent generalization and careless or ignorant use of words and phrases and definitions has thrown this whole subject and the making and interpreting and applying of its laws.*

In the Report of the special committee on narcotics of the Section on Foods and Drugs, American Public Health Association (*American*

Journal of Public Health, January, 1920), this matter is clearly gone into, as well as discussion of other vaguenesses current in the use of names and nomenclature and responsible for much of existing confusion and failure of remedy and of understanding and rational and uniform interpretation and administration of so-called "narcotic laws."

This report, written by Dr. Charles E. Terry, Chairman, and his committee, after years of its existence and study, is in the opinion of many the best concise summary of the fundamental issues and facts and needs of the narcotic situation yet presented in official report.

It reflects the ideas and knowledge, which had come to be axiomatic with the older administrators of the Harrison Act under its administration by the Bureau of Miscellany, and the conclusions of the two years Legislative Committee (Whitney Committee) Investigation in New York State, and the general analysis of the men of experience.

It was reprinted in your ILLINOIS MEDICAL JOURNAL, October, 1921.

This report is important historically and chronologically in that while it epitomizes and summarizes the concepts of the narcotic matter and its problems as those concepts had grown out of the years of experience and experiment in New York State and elsewhere and in the Harrison Act enforcement, under the Bureau of Miscellany,—it appeared at about the time that the enforcement of that Act was turned into the hands of the newly-created Prohibition Bureau, and was practically reversed in the meanings and interpretations which it had come to have.

This report is also historically and chronologically important because soon after its publication, appeared the report of another committee,—The E. Eliot Harris committee,—upon whose type of presentation the Prohibition Bureau seems to have based the policies and "opinions" and "rules and regulations" which have dominated for the past three years.

This Harris committee referred to as typical of the dominating influence for the past three years, was a committee appointed in connection with the Council of Health and Public Instruction of the American Medical Association, during the presidency of Alexander Lambert. In its reports it reflected and revived the earlier tenets and formulated dicta of the type of those com-

*Address before the Tri-State Medical Association, Peoria, Illinois, November, 1922.

ing from Dr. Lambert's associate in the Town's institution and treatment, upon which the then discarded New York State Boylan Law had been based and it is claimed, promoted.

This committee apparently ignored the clinical, and interlocking with the personnel of other committees in New York and with certain administrative appointments in New York City and their relations with the newly created Prohibition Bureau officials as shown by Congressman Volk and elsewhere, gave to the reports and announcements and opinions and definitions, etc., of the type of those of the Harris committee, tremendous dissemination and publicity, and official recognition in narcotic administration.

This committee apparently ignored the clinical and scientific literature and record of previous experiment and experience,—and with its associates centered its activities and influences and announcements upon a few generalizations which had been thought to have been discarded by the experience and investigation and experiment of the past.

The successors of this committee under Dr. Haven Emerson followed and reiterated the premises of the Harris committee.

As shown in Dr. Terry's paper "Some Recent Experiments in Drug Control," read at the narcotic symposium in San Francisco in 1920, September, and printed in the *American Journal of Public Health*, January, 1921,—the whole matter of the narcotic law enforcement and interpretations boils down to whether the administrators of laws adopt the premises of the group whose claims are typified in the Harris and Emerson committee reports, or whether the problems outlined in the report of the Terry committee and many other places are to be given consideration.

It must be realized that narcotic laws have followed the increasing custom of leaving interpretation and administration to some "commission" or "department," with wide power of "rule and regulation" making.

Attention to this is called in my book "The Narcotic Drug Problem" in the chapter on "Laws and Their Relations," in which is stated, "*Those who are responsible for our laws should remember that the possible interpretation and administration of the laws they draft are very important considerations, and determine the real effect*

of the laws often more than does the real intent of the makers."

It is interesting in passing to note as a historical incident that I wrote this book after the urgings of the administrators under the Federal Department of Miscellany, and that its contents were opposed by those who apparently controlled in influence over the administration of the Prohibition Bureau when it took over the enforcement of the Harrison Act.

So that the Harrison Act under the prevailing opinions of the Prohibition Bureau administrators was administered diametrically opposite to the opinions of the Bureau of Miscellany administration.

Also the Harrison Law has been diametrically opposite in its meaning and force and effect under the "opinions" and "rules and regulations" and administrative "decisions" of the Prohibition Bureau, to what it was under the Bureau of Miscellany up to three years ago, in so far as it concerned the practitioner of medicine.

A similar phenomenon occurred at about the same time in the New York State Law and "Commission," and also in the Pennsylvania State Law, and "Commission." Both "commissions" practically reversed the intent and purposes of the laws and commissions as shown in the transcripts of the hearings and reports upon which the laws were framed and the commissions planned.

As has been repeatedly and clearly pointed out, they were reversed through "administrative rules and regulations," in New York State giving the administration of the "Commission" all the force and effect of the Cotillo Bill, which was its overwhelmingly rejected opposite in intended force and effect. This is mentioned in my paper in the *Medical Record*, December 3, 1921, "The Neglect of the Narcotic Drug Problem." It is interesting in passing to note that just prior to the attempted passage of the Cotillo Bill, prominent medical men who had helped to block previous similar legislation were indicted by an Asst. U. S. District Attorney, who appeared at Albany with the group promoting this Cotillo Bill, and that later the force and effect of the Cotillo Bill was carried into Prohibition "rules and regulations."

All of this was made simple of accomplishment by the fact that clinical and scientific men of recognized medical authority were muzzled and

suppressed through indictment *brought by an Assistant U. S. District Attorney who was among the proponents of a partisan piece of attempted local legislation*, indignantly condemned and repudiated by medical and lay press and overwhelmed in legislative hearing.

Concerning this bill, the Report of the Legislative Committee of the New York State Medical Society says (*New York State Journal of Medicine*, June, 1921): "The Cotillo Bill, which had been in one form or another presented to the Legislature for seven or eight years" (since the activities of Towns and the Boylan Bills) "*was withdrawn by its introducer after a hearing at which the Senator scathingly arraigned the persons who asked him to introduce it and practically accused them of deceiving him as to the motives behind the bill.*"

Among the people opposed to this Cotillo Bill were the judges of New York State, who protested against and demanded an open hearing upon it in a telegram from which I quote from the transcribed testimony.

This telegram concerned the Cotillo or Fearon Bill (1920-1921) and I quote from it as follows:

"The bill referred to would utterly destroy the constructive work of five years and legislation—including two years intensive study by Joint Legislative Committee.

Forbidding doctors to prescribe would threaten public calamity.

Thousands of addicts would be without means of immediate treatment, which mere administering could not alleviate.

Existing hospitals could not cope with the number forced to the necessity for immediate custodial treatment nor new hospitals provided quickly enough to meet the situation.

The underworld and illicit traffic would find new and appalling impetus and violations of the criminal law both as to narcotics and incidental crimes vastly increased."

As I said before, in spite of the overwhelming exposure of the fallacies and claims and probable motives behind such legislation and the undoubted menace and effect of it as repeatedly previously recorded, it was carried into effect into effect through "rules and regulations" and through State "rules and regulations" and later "policies" and opinions of the Prohibition Bureau.

Few warnings have been so completely and calamitously fulfilled as that of the judges of New York against the Cotillo Bill, and the dis-

cussion of it and its effects in the report of the Legislative Committee of the New York State Medical Society above quoted.

The history of these things is little known among doctors, especially outside of New York State,—but it is the history of the development of the existing narcotic drug situation, with all its terrorism of and jeopardy to honest medical men, and its torture and harassment of the innocent addicted, and its fostering of smuggling and peddling (and the official corruption appearing in the press), and its spread of addiction among the youthful and curious and ignorant through the extension of business of "underworld" commerce *stimulated by morbid and sensational and misleading publicity, and by the diversion from and suppression of reliable clinical and scientific study and work and education.*

You men of the West who are puzzled by the obvious clinical absurdities of some of the Federal "rules and regulations" and official opinions and decisions, cannot practically understand them unless you understand the mechanism of their origin and development,—much, if not most of which is written in the narcotic development history of New York State and District and County.

The national situation is so easily traceable through and as being a development from extension from certain activities and influences in New York State, and narcotic law interpretation through "rule and regulation," etc., has of late been so dominated apparently from New York State medico-political and other influences, that the record in that state becomes the key to the Federal situation, and existing conditions in general.

It would be impossible in the space of a paper to show the vast amount of record in the eight or ten years struggle between the misleading generalizations of the various panacea promoters and the literature and students of Clinical and Scientific Medicine for legislative and administrative recognition in connection with narcotic (opiate) drug addiction and narcotic laws.

The predicament in which the medical profession finds itself in considering and dealing with its difficulties in this narcotic matter and in other matters which are coming more and more to vex it and hamper and impede its work and progress, is a psychological one. The medical profession has to a considerable extent been kept in

ignorance of the data of the real issue at stake and the real struggles which have gone on. Itself, by training and experience, accustomed to the evaluation and application of existing clinical information to individual and type indications, *it does not realize the tremendous force exerted upon the public and upon some public officials by broad generalizations and overemphasized incidents widely press-agented and insistently presented to the exclusion of all other considerations.*

Senator Lenroot, in his speech before you, earnestly warned you against the power and influence and activities of "groups" and "cliques" and "special interests," highly organized minorities, persistently attacking legislation and administration with all the skill and force and psychological influence of the methods of modern press-agenting and trained salesmanship in the promotion of particular ideas or ends which may be utterly at variance with the broad survey of general knowledge and experience.

I cannot too earnestly urge upon the medical profession the recognition of this warning and the practical meeting of it by the medical profession and its organizations and journalism in the only way in which this propaganda can be combated,—*which is by counter-propaganda for all the facts and truth and clinical information in terms and force which legislators and administrators and the lay press can understand and apply and must recognize in the influencing, making and interpreting and administering of laws influencing clinical and scientific practice and progress,—*of which the narcotic laws are the most widely-known example in which the record of machinery and cause and effect is recognized and traceable.

Senator Lenroot also told you another fundamental truth to which perhaps few medical men have given thought, but which those of us who have been forced by special experience or knowledge or recognition to participation and association with legislative and administrative forces, realize.

Senator Lenroot told you that legislators and administrators were just like other men, a part of them dishonest, a part of them unintelligent, the great majority of them uninformed on technical matters, affecting the scientific professions.

Our great problem is whether their information is to come from the "groups" and "cliques" and "special interests" and sensational publicity

which accompanies the so-called "drives" for much of the "control" or "uplift" or "reform" legislation and interpretation and administration, or is it to come from clear presentation of broad survey of all the facts of the condition and the difficulties and problems of those who must handle it in its various phases and aspects.

Is it to come from misleading and impossible generalities or is it to come from broad presentation of literature and facts and experience?

As Senator Lenroot very practically told us,—it is up to us medical men, and to our officialdom and committees and journalism, to analyze and find our real issues and to inform and direct legislation, interpretation and administration, and combat "clique" or "group" or special interest influence or emotionalism or sensationalism. Otherwise legislators and administrators and the press and even many of the medical profession are deprived of full knowledge and of sound basis for competent judgment and decision and action. This is discussed in my book, "The Narcotic Drug Problem," and in many other places.

From many places also of informed utterance and record is to be found warning of another danger within our own organizations.

This is the danger of incompetent or misleading or partisan reports coming from our own organization officialdom and committees, or inactivity in investigation and inquiry and survey on the part of those officials or committees.

In New York district this situation was recognized and protested against in the official report to the New York State Medical Society, 1921, as follows:

8. *Various committees that have been appointed by national and state bodies to "investigate" these subject (narcotics and alcohol) apparently have had as their foremost requirement for membership thereon the proof of lack of experience with the subject to be considered by them and their reports have always been entirely standardized and apparently written ad hoc by an interested group comprising not more than ten men in the medical profession and a couple of lawyers. Their investigations have not been unbiased, their findings have not been judicial, and their reports have largely been ex parte formularizations.*

Following the reading of this report the Chairman of this Legislative Committee was elected to Presidency of the State Society, which however, made no difference in the personnel nor character of announcement or activities or pro-

motions connected with some of these "committees."

It was recently admitted in an open meeting by the chairman of one of these committees that they had paid little or no attention to clinical literature and record and experience.

I am as you may appreciate, in touch with most of the clinical students and writers on this subject from a scientific standpoint,—and so far as I know none of us or our collections and libraries of data have been consulted by these "committees."

Indeed it is even possible that the attacks upon and attempted suppression of some of us and our Clinical Record and experience may have been accomplished with the knowledge at least of some of this officialdom, *which was promoting the "formularizations" referred to in the New York State Medical Society Report, and trying to have them replace Clinical Literature and Experience as a basis for the making and interpreting of narcotic law*, in its application to the medical profession and the honest and innocent addicted sick.

I know that similar effort had been made before when the Harrison Act was under the administration of the Bureau of Miscellany, but had failed with the older administrators who had made serious study of the condition and situation and were familiar with its various angles and phases and problems and facts.

The attitude of these experienced men who had no formulae nor affiliations, and their desire to encourage the medical profession to engage upon and solve the problems of clinical medicine involved, is presented in an article by "A Government Official" in *American Medicine*, December, 1917, a year which marked the close of the first year of the Whitney Investigation and its Preliminary Report, which is also to be found in the same number of *American Medicine*.

The years of the administrative holding of this attitude and this interpretation and application of the laws were marked by advance in clinical study and education and in steady growth of competent clinic and hospital facilities,—and as has been repeatedly pointed out in highest places, medical and lay, judicial and administrative,—by the rapid diminution almost to the point of disappearance of the "underworld" smuggling and peddling traffic and the making of new addicts through the extension of its business.

The advent of the Prohibition Bureau in administration of the Harrison Act, and its adoption of the "formularizations" type of interpretation and regulation-making, and as shown in Congress by Doctor Volk and elsewhere, its close association with some of the influences behind the Cotillo Bill,—marked a complete reversal of this situation and of the force and effect of the administration of the narcotic laws.

As will be seen from the record,—the Cotillo Bill was promoted from among the "committees" discussed in the New York State Medical Society legislative report above quoted, and from the New York City Department of Health whose narcotic activities interlocked in personnel of control with some of these "committees." This is recorded in Congressman Volk's speeches and other places of open record.

Following the discussion of the Cotillo Bill which I have quoted earlier from the New York State Medical Society report as being a continuation of the type of legislative and interpretative effort by Charles B. Towns, and as having been repudiated by the Senator who introduced it, is a discussion of the inevitable results and effects of this type of legislation and interpretation as brought out at the hearings upon it and as warned against in the telegram from the Judges of New York State before quoted in this paper, and also in much medical and lay press protest at the time of the attempted passage of the Cotillo Bill.

The Report from the New York State Medical Society summarizes as follows:

"Where the scheme is not horrible and inhumane, it is ridiculous and at the same time sinister."

The report then continues in warning and prediction against further promotions of the same "scheme," in whose fulfillment you men of the West as well as the doctors and sick of the country have become concerned and by it affected, as follows:

The bill is not a local one. A studied attempt is being made to effect it into law in many states, and an earnest effort is being prosecuted to have the regulation promulgated by the Federal Bureau having charge of the Federal Harrison Act to give that act the same force as this bill (the Cotillo or Fearon Bill) would have if it became law.

In other words,—to have the effect of completely eliminating the considerations of *Clinical Medicine and Therapeutics* and forcing all dis-

cussion of these matters into the channels of legal or pseudo-legal technicalities and quibbles on a basis of such premises laid down in the "formularizations" from the "interested group," comprising not over ten men in the medical profession and a couple of lawyers.

Or in effect to make this subject as it applied to the practitioner of medicine and the honest and innocent addicted, subject to the manipulation of publicity and politics (medical and lay) and statistical or other generalizations, from without the realm of the general practice and study of the problems and conditions of Clinical Medicine and Scientific Research which were so urgently requested and fostered by previous administrative policy and experience.

Illustration of vicious formularization is the definition of "ambulatory" treatment which became current. It has no clinical or scientific sense or significance, but is useful in propaganda.

Historical development of the situation is to be found in the *Druggists Circular* for October, 1922. The Druggists' organizations were aroused by a so-called "conference" held in March, 1922, for the stated purpose of appointing a committee to draft another "Model" state narcotic law. The officials and committees of the druggists organizations began to study into the history and data of the subject in which they were being regulated. This study has been followed by expressions and publications which will repay the perusal by the medical profession.

It seems possible that in the 1922 "Model" state narcotic law, coming apparently from those connected or associated probably with some of the "committees" referred to in the report from the New York State Medical Society, and in whose drafting is represented an organization known as the League for Drug Control,—may be fulfilled the prediction contained in the New York State Society Report that an attempt would be made to "effect it (the Cotillo Bill) into law in many states."

The practical question then for medical men is contained in the speech to you by Senator Lenroot. Whatever may be the motives or purposes,—is it wise to permit concentration of power and domination of presentation of complex scientific and sociological matters, many of whose problems and difficulties are as yet unsolved, to fall into the hands of particular

"groups" of individuals? And with this, its inevitable corollary, the menace of possible "group control" or "rules and Regulations" making in a "commission form of government."

Are laws to be interpreted and administered in the light of all available information and facts and problems and difficulties or upon the basis of certain "formularizations" into whose origin and reliability and qualifications there is no present way of compelling investigation before adoption by administrative officials?

Under such conditions, there are no laws. There is merely administrative opinion written into "rules and regulations."

And the activities of the situation become distracted from the consideration and solution of the problems and difficulties confronting the practitioners and the workers and the sick, to the mad scramble to dominate or check in administrative consideration, in publicity, in political appointment or election (medical and lay) in accordance with the aims or ends of opinions or interests of conflicting "groups" or "cliques." It is such a chaotic state of affairs which has caused existing conditions.

In such a state of affairs, literature and record and calm review of conditions and facts is always impossible in competition for presentation with specific "generalities" or sensational incidents. The newly appointed administrator or the editorial staff of the press have no way of going behind the statements made by apparently reliable officialdom or appointed "authority." I have discussed this matter in my paper "The Administrative Handling of the Narcotic Addict,—Its Benefits and Dangers," (*American Journal of Public Health*, Jan., 1920). As Senator Lenroot stated, *too many of them must exercise their judgment uninformed of all the facts.* And yet upon these judgments may hang for years, in rules and regulations, later transformed into laws and court decisions, the possibilities of progress and remedy and solution of technical problems affecting the scientific professions and the sick and the public.

And for broad and fair review of situations so created or affected, the medical profession does not seem to have in existence competent or disinterested or adequate machinery, for the expression or protection of its general information or opinion, or rights or privileges or duties to de-

velop its resources and apply them in the relief of the sick and the welfare of the public.

Example of this is to be seen in the alcohol therapeutic restrictions, where a small group of individual doctors are said to have gotten together to make legal protest against what the medical and pharmaceutical professions regard as unwarranted and dangerous and unreasonable restrictions in the therapeutic use of this medicinal agent. Such a move should not have been left to an individual or a collection of individuals. It should long ago have been the subject of protest from medical organizations.

That the organizations are awakening to the facts of the situation is obvious from the last Convention of the American Medical Association and the Resolutions there adopted and the speech of the Speaker of its House of Delegates (*Journal A. M. A.*, May 27, 1922), as well as from the record of many other organizations, medical, pharmaceutical and otherwise.

In other words Clinical and Scientific Medicine and other scientific organization forces are beginning to awaken and realize the facts of the situation in which their members find themselves hampered in their work and efforts to minister to the sick and suffering.

The individual physician cannot compete financially alone in courts of law, with the opinion of administrative officials backed by the financial resources and machinery of State or Federal Government.

If review of rules and regulations and provisions as demanded by the group of doctors bringing the suit against the alcohol therapeutic restrictions is needed,—how much more it is needed in the case of the narcotics as applied to the needs and sufferings of the innocent sick?

One thing which has led to much confusion is the use of the word "LAW" in reports and publicity,—where the matters discussed resulted from administrative rules and regulations and opinions.

An example of this is seen in a report signed by Dr. E. Elliot Harris, appearing in the *New York State Medical Journal*, April, 1920, and used in support of the Cotillo Bill.

Dr. Harris speaks of the "law" then in force in New York State as having had a "fair trial." This would dangerously mislead the uninformed, as is shown by the statements coming from the judges of the state through Judge Collins and

showing that the "law" itself in its original intents and purposes had never been enforced and that the rules and regulations (Federal and State) had been calamitous in their results,—in some instances going so far as to "practically repeal the law" itself,—and to revive smuggling and peddling and drive practitioners of medicine and pharmacy from their "legitimate" work in connection with this matter.

It is also pointed out through the judges that the organizations of medicine and pharmacy had their legal redress in the control of extra-legal administrative activities and rules and regulation making.

Of these things Dr. Harris seems to have been ignorant and not to have informed the profession, through his various "committees."

This matter has been widely discussed, among other places in your ILLINOIS MEDICAL JOURNAL of October, 1921, which quotes an important communication from Judge Collins, himself, and an editorial from the *Medical Record*.

The realization and practical appreciation of this is the key to the untangling of the existing muddle of various opinion and "regulation" and promotion and publicity which constitutes the foundation for and machinery of development and continuance of the present narcotic drug situation.

Unfortunately each new administrator, medical or lay, tends to start with the conceptions which all of us probably had at first, of the narcotic or opiate addicted being a class of degenerated or criminal tendencies, and the problem being one simply of control.

In my early experiences in the Narcotic and Prison Wards in Bellevue Hospital I myself followed this theory and concept.

My awakening came as a result of two things,—

1. *Failure of measures based on this theory.*
2. *Deaths of opiate addicted patients as result of opiate deprivation without clinical understanding and skill.*

You will not find these things recorded in the statistics. For one reason I did not know or realize for some time that these deaths were resulting from opiate deprivation. I had simply followed the then prevailing teaching that opiate addiction was simply an indulgence or "Habit." I later realized that *people did not die from "Habit."* They did not die often enough to get the "Habit." So that that part of my experi-

ences had to be explained in some other way, which was what really started me on my clinical and other studies in this subject which became my scientific hobby.

I then started to study on a basis of observing facts instead of generalizing on a basis of words,—a process which it has seemed this matter as a whole periodically goes through, with change of administration medical or lay,—or following the promotion of each new panacea sufficiently backed to secure publicity and recognition.

The last three years have been a remarkable demonstration of a succession of these processes,—one after another demonstrating their futility and failure and now it is to be hoped coming back to sanity and the consideration of problems and conditions and scientific and clinical literature and experience and fact.

The sensational publicity which has been secured for some of the morbid or “underworld” or degenerate types of individuals addicted, and for the exploits of the “underworld” smugglers and traffickers and so forth has constituted in effect a camouflage or “smoke-screen” or distraction and has allowed certain issues of this matter to be “Ballyhooed” at the expense and to the practical elimination of problems and needs of serious and important consideration.

It is a coincident that each of the “drives” for the type of legislation or interpretation which has dominated for three years has been preceded or accompanied by this same sort of sensational publicity, and the suppression of consideration of the literature and record and experience of Clinical Medicine, and previous sociologic and economic and public welfare experience.

Formularizations and generalizations lend themselves to Ballyhoo and exploitation, and presentation and application to absurd and dangerous ends and deductions. It is abortive of real remedy and real progress and real control.

Nothing has been more repeatedly demonstrated as a matter of overwhelming record than this last statement has been in the history of the narcotic drug and narcotic law developments and situations.

Sooner or later, after each one of these “drives” or “panacea” promotions based upon a few statements or words or phrases or as the New York State Medical Society report calls

them “formularizations,” there has had to come a taking account of stock.

The real question is: Have the methods of administration and publicity and control of the past three years fulfilled the promises of their proponents or have they fulfilled the warnings of the predictions expressed at the Cotillo Bill hearings and elsewhere?

As Doctor E. H. Williams states in the introduction to his book, “Opiate Addiction,” have all these strenuous efforts and widely press-agented presentations and plans left out of consideration some fundamental elements without whose understanding real remedy and solution and control and progress is impossible,—among the most important of those elements being the Clinical and Scientific study of the matter being dealt with.

In the 1919 Report of the Spécial Committee of the Treasury, and in the Reports of the New York State Legislative Investigation, and in the reports from the Judges Committee of New York State, and the reports from the American Public Health Association, and in endless amount of medical and lay and legislative and other hearing discussion is found recognition of the fact that many of the basic problems of the condition most concerned in these narcotic laws are still unsolved, and that application of what knowledge exists is still not widely known or practiced,—*a direct result of the Ballyhoo of sensational and morbid incidentals.*

Survey of the literature and record and report and discussion shows that *the public institutional treatment and much of the private institutional treatment of this condition of opiate addiction has failed*, and that the mere using of the words like “after-care” and the expressions indicating degeneracy or perversion which apply to some cases or individuals addicted or unaddicted, and the reiteration of the wiles and stratagems of the “underworld” peddler, will not longer distract from nor furnish alibi for the fact of this failure, in clinical and therapeutic result. (See N. Y. State Prison Commission Report, 1922, etc.). (Whitney Investigation, Cotillo Bill hearings, etc.).

In both medical and lay press is again more and more coming back into consideration the innocent and honest types of individuals afflicted with the condition known as opiate addiction and

the problems and difficulties and harassments under which they and their physicians labor.

There is less and less in the press today about the sensational aspects of the "underworld" manifestations, agreed by all competent people to be a problem entirely dissociated from the needs and problems of the honest and upright. *How much of this "underworld" and "criminal" sensational publicity has been reflection from actual conditions, and how much of it has been press-agented in propaganda or promotion for special ends, etc., will never be known.*

A letter to me recently from an official in the Health Ministry of Canada, shows the realization of how this sort of publicity reacts in the spreading of the conditions which it Ballyhoos.

As a definite proposition, going beneath all the definitions and phrases and words and formulae which have prevailed in much publicity and some places of administration and some report for the last three years,—are our laws being framed and interpreted and administered on a basis of propaganda, promotion and ballyhoo or on a basis of survey and study and correlation and application of all available information and fact and material and literature and the experience of Clinical and Scientific Medicine?

That seems to be coming again into appreciation as the real issue underneath all the confusing and kaleidoscopic reiterations and discussions and promotions and controversies.

I have tried to show this issue graphically on the placard which I have arranged about the cartoon from the *Saturday Evening Post* of May 20, which I have relabeled and retitled "Scientific Work versus Ballyhoo."

If you are going to understand the development and remedy for the situation existing in relation to narcotic drug addiction and narcotic laws you must get to look at some part of it as a result of *Ballyhoo*. You can understand it in no other terms.

Our problem is are our laws to be made and interpreted by Ballyhoo for personal or group opinions or promotions, or are they to be made and interpreted by application of medical and clinical and scientific basis for sane and practical remedy?

Which leads up to the solution:

1. Stop the Ballyhoo and exaggeration and sensationalism.

2. Bring back Clinical and Medical and Scientific Study and Education.

3. Separate the situation into its various component problems, and do not try to make any one set of formulae or definitions or regulations apply to every problem that comes up.

(After the past three years this should have been learned if nothing else is to be gained from experience and experiment.)

4. Make those concerned with each phase or problem *make and keep themselves competent,—and stay on their own jobs.*

5. *Hold officials (medical and lay) responsible for the reliability and competency of what they say or do and for the results and effects of it.* (Political appointment should not confer immunity to information, responsibility and competency.)

6. Keep officials (medical and lay) from engaging in partisan promotion.

7. *Keep medical profession as a whole fully informed of facts and of all available information, and current events and issues.*

8. Analyze causes for failure of recent activities and policies and experiments, administrative and otherwise.

9. Force recognition of and application of full and equal exposition and consideration of all material and facts. Keep legislators and administrators informed of them. Most mistakes are made through pure ignorance due to lack of information.

10. Get rid of all misleading or incompetent or meaningless or false generalities, and replace them with knowledge of literature and record and experience and fact, in the handling of conditions and the interpreting and administering of laws.

These are real useful jobs for our administrators and officials, medical and lay, and for every journal editor, and for every practitioner of medicine who is interested in the future and progress of his profession and his science and art.

The need for this applies not only in the narcotic matter, but also in other fields of medical and lay uncertainty and changing conditions and turmoil complicated by incidental controversies and quibbles.

All other methods than this have failed, and have aborted remedy and progress. *No royal road, no "panacea,"* has been or ever will be

found for a complex situation involving many problems.

If a true slogan is needed, make it "*Less Generalization, Less Quibble, Less Ballyhoo!*" and "*More Competency, More Work, and More Education!*"

It is a serious impeachment of our times and conditions that it has been necessary for you to have to ask me to take up this hour in a talk on the forces and conditions and laws and regulations surrounding the subject of narcotic addiction as it concerns the practice of your professions, and the problems of your afflicted patients.

But it is by such things that Clinical and Scientific work has been driven out. And the scientific professions are "milling around like sheep" for lack of understanding of these things into consideration of which some of us who have devoted years of study to clinical and research work and experiment have been driven in our own protection and the protection of our work and our profession and the innocent sick.

I wish I might have talked on this clinical and research work forced to recent neglect and abandonment. Some of you have asked for it, and cited cases illustrating your need for it. I can simply tell you that available for development and teaching lies to hand much of clinical and research application and therapeutic value, that if possible of general teaching and development should early solve the physical problems of opiate addiction, or as the French call it "chronic opiate intoxication." Of the chronic conditions, as soon as general interest and clinical work and education is again made possible, opiate-addiction will become one of the most generally controllable and arrestable and preventable. It can only be done, however, through clinical and research understanding and work and education. The advocated panaceas have all failed. The relief of the present and the hope of the future lies in Clinical Medicine.

LAMENTABLE SOCIAL FACTS

LEE ALEXANDER STONE, M. D.

CHICAGO

While the world war was on there undoubtedly was a need for many drastic rules which were put into force by health authorities because the efficiency of the nation's man power was at stake. The war is over, and now we should return as

nearly as is possible to normal. Certainly the constitution of the United States which grants freedom from oppression to all should be lived up to, and oppressive health laws or health regulations that were put in force during the emergency should now be rescinded or repealed.

I feel that many an injustice was done during the war which I excuse because of the exigencies of impending disaster which controlled the minds of all of us.

Too much stress is being put on the dangers of venereal diseases by health officers who pay no attention to the time when the disease was contracted or whether it may be active or chronic at the time of examination. Especially is this true of syphilis. Many found to be suffering from this disease are not in an infective state, but are suffering from the end results of the disease rather than from the disease itself. I am referring here to paresis, tabes, (locomotor ataxia) and to many of the late manifestations of syphilis.

Too much credence is put in the Wassermann or blood test. This test very frequently is not positive evidence that syphilis is present. Without positive clinical symptoms, and without a history of an initial lesion (chancre) the Wassermann blood test should be discounted and the patient given the benefit of the doubt, with instructions to report from time to time for further going over, and watching.

It has long been the policy of those in charge of health department examining rooms to condemn as infected with syphilis those who show even the slightest degree of a positive Wassermann. I have frequently seen girls sent into Lawndale Hospital here from the Chicago Health Department on a "suggestive positive" without a single bit of clinical evidence of syphilis being present. A case with a four plus Wassermann without active lesions should not be quarantined. For a four plus may be found in those suffering from tertiary syphilis as well as from the secondary type of this disease. The clinician examining these cases should under no circumstances, without determining first the stage of the disease, (syphilis) even think of quarantine.

If every individual in the United States whose blood showed a syphilitic taint were put into forced quarantine, I greatly fear that the scandal created would quickly bring hasty minded health officials to their senses. Certainly lawmakers

would fight to have repealed, laws that are inimical to social liberty. Syphilis and gonorrhea are too prevalent in society for society ever to give its free consent to the forcible quarantining of all of its members found infected.

Unfortunately the "fallen woman" who has been found out because of her error becomes the prey of many anti-social beings who are more bent on exposing sin than they are in punishing it. This poor creature of the streets becomes the bait which lawmakers and health officers offer for publicity which they mistake for fame.

Morals courts everywhere are taking their toll in fines from misguided girls who had they been given a chance for their "white alley," might have come back to become splendid women. The fining and punishing of prostitutes by judges is their way of salving the consciences of a morbid society which says, "punish those foolish enough to be caught." In other words the fines collected are licenses to practice prostitution. The courts would be horrified at such a statement. I am not inclined to withdraw it for the reason that hundreds of those fined repeat their offense and are arrested and fined again. This fining occurs time after time with the same woman. Rarely are the "quick" women who infest all of the large hotels over the country ever arrested. Nor are the kept women whose numbers are legion, ever disturbed.

I know of no more vicious institution in the country than that institution known as the "Morals Court." One Chicago judge realizing the hopelessness of those brought before him and his own helplessness, committed suicide rather than function further in the Chicago Morals Court.

In Chicago the Morals Court functions because of an apathetic society. If Chicago citizens knew a part of the real truth of the indignities heaped on the heads of female offenders arrested for alleged sex offenses, they would demand that the court as at present organized be done away with or at least that its functions be limited. Every morning young girls (first offenders) are found herded with groups of old timers whose very presence is demoralizing, being led to that hell hole of iniquity, the Morals Court examining room run by the Chicago Health Department. Before reaching this room these same girls are led with hardened characters after a night in jail,

having been forbidden bond or the privilege of communication with friends, through a crowd of pimps, macques, curiosity seekers, et. al. who congregate at the La Salle Street entrance of the City Hall to view this dejected group as it is taken from the patrol wagon to the elevator under heavy police guard to the seventh floor of the City Hall. After examination, mind you before trial, the procession again begins its sad journey to the Morals Court, to again have further indignities heaped upon it, by curiosity seekers and court hangers-on whose only occupation seems that of preying on the sorrows of others. These human vampires who infest the courts take insane delight in listening to the tales of the girls themselves and to the abuse of the Health Department law clerk whose duty it is to see that none go unpunished, and who argues that all be sent to the Contagious Disease Hospital. Law clerks of this type are to be found in nearly all Morals Courts and are sadistically inclined in that they view with insane delight the suffering of others and enjoy inflicting it. Late in the afternoon marks the trip in a patrol wagon to the Chicago Contagious Disease Hospital under the control of the Health Department, *the greatest school for prostitutes in Chicago*, where first offenders are compelled to associate with old timers and to learn from them how to make further progress on the road of social iniquity.

There is no such thing as attempting the rehabilitation of sex offenders at this hospital. The women there are for the time being in prison. The Contagious Disease Hospital is Chicago's second bridewell. Many estimable women have made numerous attempts to help the women confined there but without success.

Women sex offenders are not allowed to see their friends except through heavy plate glass windows nor are they allowed to converse with them except in this way. Women with active gonorrhea and active syphilis are herded with those whose infection is chronic, thus rendering absurd the dictum of quarantine, which says that those found actively infectious or contagious shall not come in contact with those not suffering from an active or contagious stage of a disease. It is a well known fact that one case of gonorrhea does not confer immunity against the chances for further infection. This is also true of syphilis.

for many cases of a new infection have been reported.

Women are being discriminated against. They are being held while their male partners are allowed to go scot free and to continue on the rosy path which leads in so many instances to further destruction of others. Men known to be infected and to be in a highly contagious stage of either syphilis or gonorrhea are dismissed with instruction to visit a physician or a clinic. It is a well known fact that they continue to seek the company of women and thus spread their infection to many. Rarely are they watched nor is any especial attention paid to them. They go on their disease spreading orgy unhindered. Men are the conveyors of venereal disease thus making misguided women their spreaders. Truly does the woman of the streets become a type of social avenger worse by far than the gun carrier. Once she realizes that the hand of all mankind is turned against her, at that moment begins her desire for revenge.

I have listened to hundreds of these women, old before their time, crying aloud because they knew that there was no one who would willingly come to their assistance except to use them over and over again for immoral purposes. They learned too late that the subtle flattery poured into their ears by designing males was not sincere but for the purpose of bringing about their further damnation as far as society was concerned.

You ask me, "have I a solution?" Yes. Change the whole order of things as they are at present constituted in society. Teach men to view women as potential mothers rather than as potential prostitutes as is the vogue at present. Teach women to regard their bodies as being holy and not for defilement. Teach both sexes to regard themselves as future progenitors of a race that will live up to a moral code which will teach that the body is too sacred to be profaned. Teach children the truth about themselves.

There is nothing wrong in teaching a child the source of its being and in teaching it respect for that source. Parents cannot begin too early in this teaching. Sex consciousness comes with the asking of the question, "Mother where did I come from, who made me?" This fact should be realized by parents who so persistently refuse to answer their children's questions concerning the origin of life. By teaching children when very

young and thus gratifying their desire for wholesome truths about their source of being is for parents to lay up for themselves a treasure to be spent at some future time. Children properly instructed are wise—no wise person ever seeks its own damnation.

Girls and boys go wrong, because of ignorance, rarely do they fall into social error if they possess a full knowledge of themselves. This fact must be learned if parents are to expect the best from their progeny.

To sum up:—repeal vicious war time health laws; check up on the actions of lawmakers, in other words, curb their wild tendency to seek legislation for everything; curtail the authority of the Morals Court, or else abandon it; stop the humiliation of hundreds of women by those who have their prosecution for alleged moral offences in hand, and who are employed solely to defeat the aims of justice; force parents to begin instruction of their children early, in order that they may grow up feeling that their actions in life are divinely directed, and that they have a place in the world to fill. To follow out, this summing up means labor and yet it is worth while for what is finer than to watch properly directed youth work out its destiny?

In closing let me utter a word of warning to my friends in the profession:

Every time a health officer has a brain storm he rushes immediately to his local city council or to the state legislature to have a law passed. If this keeps up much longer those who sneeze in the confines of their own rooms will be compelled to make a report of the sneeze to a health officer.

The medical profession is in a state of lethargy. If it is not careful it will not be long before it will find itself strangled by those whose only conception of government is the passing of laws intended to limit the scope of its actions.

Our system of government is fast becoming too paternalistic. There is too much tendency on the part of many to place all health control measures under state or federal government control. It is hoped that the medical profession will wake up before it is too late.

* * * * *

Since writing this article the following newspaper clipping came to my attention:

CHARGES SOCIAL DISEASE SUING WIFE
FOR DIVORCE

Carl C. G. Falk, a traffic policeman, today filed in

Circuit Court what is said to be the first suit for divorce brought on the ground that one of the parties is afflicted with a social disease. The bill alleges that he and Mrs. Katherine F. Falk, 1447 N. La Salle st., were married June 25, 1923, and separated eleven days later.

The law making such a suit possible was fath-ered by Chicago's present Health Commissioner. This is just one of the many vicious laws relating to public health passed in the last few years. Such a law opens a field for blackmail and graft the like of which will bring unhappiness and sorrow to hundreds of innocent women and men, innocent in the sense that they did not know they were infected at the time of marriage. This law will add more work to an already over-crowded divorce court. It is my belief that it is unconstitutional and if fought by reputable law-yers would be declared so by the Supreme Court of Illinois.

25 E. Washington Street.

THE ASSOCIATION OF LIFE INSURANCE WITH THE MEDICAL PROFESSION*

O. F. MAXON, M. D.,
SPRINGFIELD, ILL.

With admitted assets of \$7,000,000,000.00 Life Insurance stands today the greatest busi-ness in the world. Not only is it greatest in financial strength but it is greatest in the num-ber of individuals it reaches; it is greatest in the promotion of thrift as well as greatest as a pre-ventive of dependency.

In 1921 American Legal Reserve Companies paid their medical examiners over \$8,000,000.00 in medical fees.

The Metropolitan Life Insurance Company's nurses made 2,116,875 visits free of charge to its industrial policyholders and 18,984 visits to per-sons insured under group policies.

The same company distributed over 25 million pieces of literature on health in that year.

With these facts before us it would seem that the medical profession and life insurance would have much in common. The life insurance busi-ness is unique in many respects. There is no business in the world that is safer. There is nothing in which you can invest your funds with greater assurance of safety than in a life insur-ance policy. There has not been a single failure

of a legal reserve life insurance company in which a policyholder lost a penny in the last 40 to 50 years, while conversely there were 33 bank fail-ures in the State of Kansas in 1922.

To show you the part played by our profes-sion in this great institution of insurance, I wish to point out that of all the various factors essential to a safe conduct of the business, the selection of its risks is of the most importance. The principal item contributing to the profit and surplus of a life company comes from mor-tality saving. Theoretically therefore the com-pany that exercises the greatest caution in the selection of its risks should be the safest. While in reality this is not literally true it does speak well for the success of medical selection and the part played by the general practitioners in con-tributing to the success of this business.

Life Insurance today is a monument to the ability and integrity of the average American doctor. In his humble capacity as an examiner, unknown to those he serves, he accepts the re-sponsibility imposed upon him and does his duty. If he had not done so this great business would not be what it is today. In my twenty years association with a Life Insurance Com-pany I have not ceased to marvel at the contin-ued inherent honesty of those physicians scat-tered all over the country, miles away from the Home Office, who never see an official of the Company they represent, and yet do their work honestly, telling the facts which sometimes re-sults in losing the friendship of a friend or pa-tient.

I wish to emphasize the part played by the physician in the wonderful story of Life Insur-ance because there are changes undergoing the business. Some of you may know that about a year ago certain companies on account of the difficulty encountered in obtaining medical ex-aminations in thinly settled rural districts wrote policies for small amounts without a medical ex-amination.

I have reasons for believing that Medical Di-rectors almost universally do not at this time recommend this procedure as safe and sane and while business thus written was done so more or less as a business expedient, or possibly an ex-periment, it has potential possibilities which may materially change our present methods of se-lection.

Personally I cannot see how the universal

*Read at the annual meeting of the Illinois State Medical Society at Decatur, May 16, 1923.

adoption of life insurance without medical examination can be practical in the vast majority of instances, but I am simply mentioning the matter here as you will undoubtedly have it brought to your attention at a future time.

Life Insurance Companies expect of course competent and honest examinations. We do not expect your examinations to be as complete or that your ability to discover disease will be as acute as if the work was done by a physician whose standing in our profession is at the top. All we ask for is honest judgment coupled with a reasonable medical ability.

One of the weaknesses of the curriculum of our medical schools today is the lack of teaching of the subject of Life Insurance examining. It is therefore not strange that the young practitioner often has a wrong impression of his duties and that sometimes he is led into errors and personal embarrassments which may prejudice him against the work. It is not so very uncommon to find a physician of more than ordinary ability in his profession, one eminently qualified and painstaking in his private practice who shows by his examination of a life insurance applicant gross carelessness and an apparent utter lack of appreciation of what is expected of him. This, of course, is the exception.

Perhaps the companies are not entirely irresponsible for this condition in not making a greater effort to show the faculties of our colleges the necessity of proper teaching in this line of work and thereby obviate such unfortunate circumstances.

At any rate, whenever a physician by painstaking work attracts the attention of the Medical Director of his Company his services are in demand by the other companies for it is no secret that we must of necessity list our examiners according to their supposed abilities.

It is undoubtedly a fact that Life Insurance examining work does not always fit into your other medical duties and as with obstetrics is frequently given up when interfering with those duties considered more important or congenial.

However, there are physicians who have extensive practices, who are so able to systematize their work that they are glad to examine for insurance, not only for its remuneration but because it gives them an opportunity to study the normal with the pathological. I have in mind a certain prominent physician in Colorado, a well-known

authority on tuberculosis, who is acting as the medical examiner of the Company I represent and others, who told me that he enjoys life insurance work and that he valued the opportunity to examine normal individuals to check himself up on his physical examinations of the abnormal.

I know a number of physicians in Chicago who are devoting their entire time to examining for life insurance and are making a financial success of their work.

There is no question that there is an opportunity in this field for those who care to consider this work seriously, especially those who appreciate prompt payment for their services. Life Insurance today has increased to such proportions that it has outgrown its fundamental purpose and is going into other fields. We have been used to thinking of Life Insurance risks as comprising a collection of individuals found to be in good health and free from gross evidence of disease by medical examinations, and while this is true today in the great bulk of the business the insuring of sub-standard risks is rapidly gaining in popularity and attaining an important position in the business of the Companies.

Sub-standard risks comprise those persons who for one reason or another do not come up to the standard set for applicants for insurance under the regular forms of policies, and at the regular premium rates.

However, a sub-standard life or under-average or impaired life, as they are commonly referred to, are insurable and while the majority of companies decline such lives a number insure a goodly proportion of sub-standard lives under special forms of policies. The embarking of certain of the larger Life companies into the business of insuring substandard risks made it almost compulsory upon the others to do likewise, possibly in some instances, against their own wishes.

The companies realize that there are no reliable mortality tables upon which to base their rates for this class of business, as is the case in standard insurance; consequently it is more or less of a gamble and at present must be handled with the utmost caution.

The writing of sub-standard insurance comprehends a numerical value on certain disease conditions and symptoms designated as impairments. Some of these require only a very slight

extra rating, while others of greater importance require a heavy extra rating.

In handling this class of business we must not only know the relative excess of the impairments above the standard but we must be able to determine the ability of the examiner to give a trustworthy opinion. One large company which has been writing sub-standard for a number of years has shown a greater profit on this class of business than in its standard business, but this is not true in certain kinds of impairments. For instance, their cases of mitral regurgitation giving a history of previous rheumatism which they had rated from 150% to 175%, experienced an actual mortality of over 250%. Of course on this class of cases the Company in question sustained a loss, and similarly they found that their experience on cases giving a history of rheumatism was more unfavorable than their rates had contemplated. This was also true of their cases of arrested tuberculosis and of blood spitting.

On the other hand, a slight mitral regurgitant murmur and irregularity in the pulse in young subjects was found to show a very favorable experience.

But in all these cases the medical examiner's opinion, based on his reputation as to ability and honesty, is a far greater determining factor than it ever was in connection with the examination of a standard risk.

While the general practitioner is the one we must depend upon for the bulk of our work we are gradually calling to our aid the specialist. Particularly is this true in the examining of sub-standard risks. If there is an otitis media the aurist is the only one from whom a reliable opinion can be obtained as to the probable future hazard. Likewise we seek the advice of the eye specialist, the dentist, the heart specialist, etc. When the Wassermann test becomes practical for routine insurance work its adoption will be most certain as it is now in certain cases.

The question as to whether the fees allowed by Insurance Companies are adequate compensation for the services rendered is the only matter that has ever threatened the harmonious relationship between the company and the profession. Evidently a discussion of this kind which was raised several years ago has now been settled and we hear very little complaint along this line. Some companies cannot pay as high a fee as others; the expense loading or what may be considered the

overhead, must be accurately determined on each policy in advance and this necessitates a fixed or flat rate. We realize that as compared to a like amount of time and labor the fee sometimes is inadequate, but in other instances the compensation is above the average for similar work, but it is impossible for the companies to adopt a sliding scale that will deal justly with all.

I wish only to touch on the great health conservation work being carried on by the life companies because you are all more or less familiar with it.

The periodical examination of policyholders, a service which is rapidly developing among life companies, is a work of vital interest to our profession, by which our national health is bound to be affected. The Life Extension Institute with which you are probably familiar, is an institution organized for the purpose of furnishing free medical examinations and medical advice through the local or family physician. This institution is largely supported from funds provided by Life Insurance Companies. What a factor this institution or similar ones may become in the domain of preventive medicines may be foreshadowed by a recent report of one of our largest companies which has been using this service quite extensively, and which shows that they have made a gain of five years in the length of life on the class subjected to these examinations, covering a period of five years and a monetary saving of \$127,000.00 on a \$40,000.00 investment. The astonishing results of this very limited experience speaks for itself and is bound to be brought to the recognition of our State and National Legislative bodies sooner or later.

Life Companies are an unseen force in medical legislation. They have always been the unequivocal opponent of those medical "bolsheviks" whose teachings are opposed to scientific medicine. We have always lent our moral and sometimes our financial support for a high standard of medical education and when pernicious legislation was pending we sent out literature, provided funds and have actually furnished men from our medical staff to speak against it. But in doing these things we have kept in the background preferring to work with the profession rather than independently.

Another phase of the insurance business which should interest the profession is their statistics.

I do not know of any other branch of medi-

cine as weak as prognosis. Looking over our text-books on practice should convince one that this is almost an unexplored field. There is probably no other source so authoritative on the remote prognosis of certain disease and ailments as the experience on insured lives, because no other group of material can be so completely under observation as a life insurance policyholder. From the time he signs the application and is examined he becomes a part of the institution and as long as his policy remains in force he is under observation by the company. Take for instance the question of build and stature. The individual and collective experience of Life Insurance Companies show beyond the question of a doubt that every pound of fat above the normal is reflected in a regular increase in the death rate, while on the other hand, in the case of the light weight, we have proven the fallacy that the most favorable mortality would be found among the persons who are of standard weight according to the standard table of heights and weights as adopted by the companies; because the most favorable experience is found to lie in the class that is ten to twelve pounds under standard.

If it is our duty to educate the public of the remote effects of specific disease, is there any less reason why we should not be equally concerned of the welfare of those obese individuals who as a class have no better prospects of living out their expectancy than those of syphilitic taint.

A man 50 years of age, 5 feet 8 inches tall, should weigh 161 pounds. If he weighs 231 pounds, or 70 pounds over standard, his expectancy according to insurance mortality experience, is about 182% and the experience of insurance companies in cases in which there is a definite history of syphilis shows a mortality of 179%, a few points in favor of the syphilitic over the fat man, and while it is not my intention to belittle the gravity of syphilis there is certainly a great opportunity for an educational campaign on the dangers of overweight.

Persons giving a history of tuberculosis are rated by insurance companies from 175% to 200%, which is practically the same rating we would impose upon the man who is 5 feet 8 inches tall and weighs 231 pounds.

The results of the educational campaign against the Great White Plague has reduced its ravages more than one-half, but we are doing practically nothing to warn the fat man of the

dangers of his condition which is equally, if not as great as if he had contracted tuberculosis or syphilis.

Going into the question of the use of alcoholic beverages, the paramount problem before the American people today, Life Insurance Companies had statistics of the most convincing character before the Volstead Act was ever thought of and there is no question that the continuation of prohibition is bound to be favorably reflected in the mortality experience of the Life Insurance Companies in the future.

The Medico-Actuarial investigation of the mortality of Life Insurance Companies has placed at the door of preventive medicine statistical material and facts of the utmost value. We can offer you statistical material showing the remote effects of disease and symptoms in classes that run into the thousands and in some instances the hundred thousands, covering long periods of time. Those records are now available to all who may be interested in public health, health conservation or similar work and it is the sincere wish of the Life Companies that the medical profession call upon us at any time to give you this information.

DISCUSSION

DR. F. A. CAUSEY, Decatur: I want to thank Dr. Maxon for his excellent and interesting paper. The title of the paper answers an oft-repeated question, "What is the present day need in life insurance examinations?" In my opinion, it is a closer association of the Medical Departments of our life insurance companies with the Medical Examiners in the field.

Everyone of you, no doubt, has an interest in some life insurance company. You have a policy in that company. You are an integral part of the greatest business in the world, a business that has grown during the last twenty years until it now represents fifty billions of dollars to its policyholders. The doctor has reminded us that it is also a promoter of thrift. Such gigantic projects as transcontinental railways, municipal improvements, local industries, etc., have largely been financed by the insurance companies of America. They have invested their funds in undertakings that have meant an immeasurable benefit to every individual within their scope of influence. This is but a small field in which the insurance companies have operated yet their work has been eminently constructive.

There may be those among you who are regular examiners for some insurance company. You, no doubt, are aware that we desire that our examination blanks shall be answered in full. Your judgment regarding a risk adds considerable weight to our final

determination of the valuation of a risk. The acceptance of insurance applications and the insuring of individuals without first having had a physical examination will never become universal because of the fact that an insurance risk may have the appearance of sound health yet there may be some impairment that can only be brought out by physical examination which will alter his insurability to a marked degree. The day when a person applying for insurance was inspected by the Board of Directors and given insurance upon his appearance has long since ceased to exist. Since our companies have taken up the matter of substandard insurance, it is more important that we have accurate descriptions of symptomatology as well as the impairments present. It is only by comparison of the findings in our prospects, with known mortality experience, that we are able to place them in a definite mortality group.

The Medical Directors of life insurance companies in the State of Iowa have, I understand, succeeded in having included in the State University curriculum, a course of lectures to the senior medical class during the last semester, which will deal with the requirements of Iowa companies and kindred subjects pertinent to the proper evaluation of insurance risks. It is an effort on the part of the life insurance companies of Iowa to bring their future examiners to a better understanding of their duties and their relation as examiners to any company which they may represent.

Life insurance has assisted in health conservation by giving every policyholder the privilege of having a physical examination made free of charge once each year. Many cases of incipient disease have been discovered and referred to the family physician for treatment with a consequent prevention of serious complication had this temporary condition been neglected. Literature regarding suspicious symptoms and signs of tuberculosis and cancer have been given wide publicity by insurance companies. The result is that cases belonging to each of these groups have come to you early for advice and treatment. Further activities, such as the Society for the Control of Cancer, the National Tuberculosis Association, Health Crusades, etc., find hearty cooperation among insurance companies.

The Peoria Life Insurance Company, which I represent, has some five thousand physicians enrolled as medical examiners and the company disburses in medical fees in the neighborhood of \$60,000 each year for medical services. In appointing examiners, we insist that they be graduates of reputable medical schools, of good standing in their local societies, in active practice, and the name of no Chiro, Osteopath, Naprapath, or other "path" is ever considered. It is our aim to maintain the most cordial relations with our examiners since we feel that they are as truly our representatives in the field as are the agents who sell insurance. It is obvious that the physician who makes a careful examination, who elicits symptoms rather than taking for granted the applicant's diagnosis and who shows good judgment of a case,

is one to whom we refer future applicants for information of a technical character. An occasional personal letter to our examiner regarding some risk is of incalculable value in promoting harmony between ourselves and the examiner.

The matter of alcoholics will remain a problem for consideration so long as it is manufactured. The indulgence in illegal liquors is far more serious from an insurance standpoint than before the days of prohibition.

Our company has kept separate mortality statistics upon those who use intoxicating liquor even in moderation, termed the "General Class" and "Total Abstainers" and during the year 1922, we found that there was a saving of 34% in mortality in favor of the total abstainers.

I cannot quite agree with the doctor when he says that we have no reliable mortality tables upon which to base our rates for substandard risks. Though the mortality statistics on impaired lives are not voluminous nor conclusive, yet they are ample in certain instances to warrant us in accepting such risks with additional rating to cover the extra expected mortality. By obtaining an accurate description of the case through our examiner, we are able to properly evaluate such impairments.

DR. MAXON: (Closing.) I was much interested in the last issue of the Journal A. M. A., which contained an article relative to periodical examinations and the blanks recommended for this purpose.

This is a line of work that the medical profession should push and not allow the Insurance Companies to monopolize. I do not believe that the profession in general realize the possibilities in it, not only the satisfaction one derives from finding the first symptoms of disease at a time when so much can be done for the patient, but also these patients are so grateful for the information and advice.

I believe that the results of the Metropolitan work along this line is one of the most remarkable demonstrations of the wonderful good of preventive medicine that has ever been published, in fact so astonished were the officials of that Company at the results that they would not believe it was true until the results had been checked a number of times.

ON THE INFLUENCE OF PITUITARY EXTRACT ON THE GASTROINTESTINAL TRACT

hypophysis affects the gastrointestinal tract, among other regions. Many investigators testify to an unquestionable increase of tone and of peristaltic action, especially in persons of a labile nervous system. The complex chemical reaction is not well understood, but in various states of the vegetative nervous system it undoubtedly results in a decreased secretion on the part of the salivary glands, the pancreas and the gallbladder by reason of increased gastric secretion, while in the opposite condition the consequences are reversed.—Gorke and Deloch (*Archiv für Verdauungskrankheiten*, 29: No. 3).

THE PRESENT STATUS OF VENEREAL DISEASE CONTROL*

SENIOR SURGEON C. C. PIERCE,
U. S. Public Health Service,
CHICAGO, ILL.

The title of this paper, "The Present Status of Venereal Disease Control," implies that control of venereal disease has a recognized place in public health work and that it has acquired and maintained this position for some time, and that the accomplishments in this field are either progressing or retrograding. I believe that it is obvious to all who are keeping up with progress that the control of venereal disease is a recognized function of local, State and National health authorities, and I am sure that considerable progress is being made toward the ultimate solution of this great public health problem.

To give a correct idea of the present status of this work it will be necessary to refer, very briefly, to the way in which venereal control has developed during the past few years. Five years ago there were only six States in which gonorrhea and syphilis were reportable diseases, while at the present time all of the forty-eight States require these diseases to be reported as communicable diseases. This fact is mentioned for the reason that the first step made by health authorities toward the control of any disease is to get the cases reported. No argument is necessary on this subject, because it is apparent that no action can be taken to prevent the spread of any disease unless the health authorities know when, where, and under what circumstances cases of communicable diseases exist.

There is, of course, a reason for the rapid extension of the recognition of venereal diseases as an official health problem, and this reason was in this case two-fold; first, the health officers of the various States were aware of the existence of this untilled field of public health effort, and second, Congress passed a Bill authorizing the extension of financial aid to the States for the purpose of controlling the spread of venereal diseases. As this Bill was passed on July 9, 1918, while the World War was still in progress, there has been a mistaken idea on the part of some people that this participation of the Federal Government in a special health problem,

was war emergency legislation, and now that the war is officially over, it is time to take a rest, and get back to normal conditions. The Law passed by Congress to stimulate venereal control work was not war legislation. It is true that the data in regard to the national prevalence of venereal diseases was obtained as a result of the examination of men under the Selective Service Act. It is also true that part of the Bill referred to special war time activities, providing for protection of the armed forces of the United States against venereal infections. The activities carried on by the Federal Government under these special provisions of the Law have now ceased; not through repealing the Law but by that very effective method of making no appropriation for continuing the work. This does not apply, however, to that part of the work carried on by the U. S. Public Health Service, through its Division of Venereal Diseases, and the work done by State Boards of Health in cooperation with the Public Health Service, and financed to a very limited extent by congressional appropriations. I would like to bring up at this point the question of the Federal Government's participating in health activities which are considered by many as strictly local questions to be decided locally, financed locally, and managed by local officials without any outside aid, advice or other participation. To present the matter properly we must remember what sort of a Government we have at Washington. Our Federal Government is one of delegated and specified power. The Constitution of the United States tells what the Federal Government may do, and on those questions where the constitution is silent, the rule has been to regard those unmentioned questions as functions of the various States. There are, however, certain general clauses of the constitution which confer upon the Federal Government the right to do certain things that are not definitely specified.

There are three such general clauses which give to Congress very broad powers to cooperate with State Governments in promoting health work. The first of these general clauses is the right of the Federal Government to regulate commerce between this country and foreign countries and between the several States. You will observe that this general clause may cover many activities, because no specific definition is given of "regulate," "commerce," and "between the

*Read before the Public Health Section, Illinois State Medical Society, at Decatur, May 16, 1923.

several States." The next general clause under which health regulating functions may be exercised is the one conferring upon Congress the power "to lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defense and general welfare of the United States." Another general clause grants to Congress "the power to make all laws necessary and proper for carrying into execution any of the powers vested by the Constitution in the Government of the United States or in any department or officer thereof."¹

Under these general powers of the Federal Government, there can be no question, not only of the right of our Government but of its duty to assist in the solution of health problems of national scope. Just how far this help should go is another question. It has been the policy of the National Government to give its help to local authorities in such a way as to put the main responsibility upon the States, and localities therein, that are being benefited by the work. This seems a proper, logical and fair arrangement to all concerned. It would be unwise for our Government to pay no attention to neglected health problems of a local community until such neglect results in interstate spread of diseases, because in this latter event it becomes the duty and legal obligation of the national Government to prevent the interstate spread of disease.

Therefore, the cooperation of the Federal Government with the States in carrying on health work actually results in lessening the amount of health work the Federal Government might be called upon to do. It should also be said that the health work of the National Government in any particular State, extended to States through the U. S. Public Health Service, is always done at the request of the State Health authorities. It is usually in the nature of a survey, a demonstration of what can be accomplished, or a mutually arranged program of public health work which it is planned to make permanent and turn over to the State, to finance and manage. In other words, State and Federal cooperative health work is just like a consultation between doctors on a difficult case, and when the need for consultation passes the work remains with the local authorities. In the special work to which this paper is limited, the States have already pretty nearly taken over the entire burden as the amount of financial aid extended by the Na-

tional Government for venereal disease control has been gradually but greatly reduced. Each of the forty-eight States did, however, accept its share of Federal funds available for venereal disease control work and has a more or less well organized Bureau or Division of the State Health Department at work on the control of gonorrhea and syphilis. It would be impracticable to attempt to give the details of the work in any particular State or in all of the States, but some idea of the present status of venereal disease control may be obtained from the following statistical data:

DATA GIVEN FOR FISCAL YEAR ENDING JUNE 30

	1921	1922
Number of venereal disease clinics in operation	624	541
Total number of monthly reports received from clinics	4,749	5,397
Total number of patients treated at clinics	140,748	141,279
Number of cases of syphilis treated	74,056	74,649
Number of cases of gonorrhea treated	61,059	60,954
Number of cases of chancroid treated	5,633	5,676
Patients discharged as non-infectious	55,467	60,169
Number of treatments given	2,108,003	2,045,232
Doses of Arsphenamine given	480,651	509,523
Wassermann tests made	251,885	298,486
Microscopic examinations for gonococcus	185,325	192,745

An examination of the above data shows the number of clinics decreased by 83, yet the number of monthly reports sent in increased by 648; fewer clinics sent in more reports, indicating better records were kept. The total number of cases treated at all the clinics increased slightly during 1922, thus indicating a larger per clinic output of work; and better work as indicated by the number of persons discharged as non-infectious during 1922, which figure showed an increase of 4,702. The number of treatments given during each of the two years was about the same, but the number of doses of arsphenamine given increased 28,872, indicating that each syphilitic patient received more arsphenamine treatments. The number of Wassermann tests made with practically the same number of cases of syphilis under treatment showed an increase of 46,601. This indicates either that persons who thought they might have syphilis came to the clinics for diagnosis, or that the Wassermann test was more often used for the guidance of treatment during 1922 than during 1921. This same comment would apply to the increased number of microscopic examinations made for the gonococcus, there being 7,420 more such examinations in 1922 than in 1921. Another significant evidence of the present status of venereal disease control work in the United States is the fact that in thirty-five States there has been a decrease in the number of cases reported to the

State Boards of Health. These decreases ranged from 60 per cent. in Mississippi to one-third of one per cent. in Ohio. On the other hand eleven States showed increases in the number of cases reported, these increases ranging from 56 per cent. in Oregon to 2 per cent. in North Carolina.

It is too early in the history of active venereal disease control to assume that the decrease in the number of cases reported to these thirty-five State Boards of Health is an indication of an actual decrease in incidence of infection. It is, however, of value to have accurate data of any sort in regard to venereal disease and opinions gathered from various sources show a growing belief that there are fewer acute cases occurring at the present time.

At a conference of several venereal-disease control officers in May, 1922, the feeling was unanimously expressed that there is a decline in the infection rate. The State Board of Health in Mississippi reports that the percentage of physicians reporting has increased from 90 to 96 per cent. in the years 1918-1921, but the total cases of venereal diseases reported are on the decrease. Replies to a questionnaire sent to college presidents, shows a general belief that the infection among college students has decreased. The June, 1922, issue of the *Statistical Bulletin* of the Metropolitan Life Insurance Company, made the statement that there has been a decline of 21 per cent. in the mortality rate due to syphilis among industrial policy holders during the last four years, the figure for 1921 being 13.1 per 100,000 as compared with 16.6 in 1917. The *Bulletin* says further: "A careful examination of the figures for age indicates furthermore, that the difference between the rates for 1917 and for 1921 is chiefly accounted for by the lowering of the rates in the age period between 25 to 55 years. We may venture the suggestion that this improvement in the early and middle years of life is the result of increasing effectiveness in the treatment of syphilis." In the absence of more reliable data, judgment should be suspended, but the trend of opinion just expressed is significant.

To go back to the work done by the venereal disease clinics: It seems unnecessary to make any comment on the great value of clinics where indigent patients, or those in poor financial condition without being actually indigent, are rendered non-infectious and if possible, actually

cured. In no other way can foci of infection be eliminated except by treatment and cure or by quarantine of infected persons. A few years ago an officer of the Public Health Service wrote out a State-wide plan for venereal disease control work, and in speaking of the clinic for treatment of venereal disease, and its relation to the local physicians, said, "The success of the clinics will depend more upon the sympathetic cordial support of the medical profession of the city and area than upon any other factor outside the immediate management of the clinic. It is, therefore, highly essential that the support of the medical profession be obtained. This means practically an educational campaign among physicians. Each health officer should inaugurate this at once, and push it at every opportunity."²

In at least 90 per cent. of the locations where the present 541 venereal clinics are located, the local physicians have either cooperated actively in making the clinic a success or have viewed its work with indifference. In the remaining small number of locations certain local doctors have felt that the clinic where venereal diseases were being treated, interfered with their practice and have been outspoken against this phase of public health work. Probably some of these opponents were troubled with the ghost of that imaginary Frankenstein, sometimes called by the very indefinite term "State Medicine." In one case where there was opposition to the clinic on the part of the medical profession an accurate record was made of the statements of the clinic opponents which throws some light on the subject. This was the case of a venereal disease clinic, established by the State Board of Health, in a town of a mid-western State. The clinic was doing good work and was being heartily supported by a local public health organization and by the business and civic interests. The local medical society leaders were, however, antagonistic to the clinic and wrote the State Board of Health, asking that the clinic be closed. An investigation was made by the State Venereal Disease Control Officer and he found that no one in the town wanted the clinic closed except this group of doctors. He suggested having a public hearing on the question of whether or not the clinic should be closed, and this hearing was actually held. At this public meeting the doctor selected as spokesman by the opponents of the clinic stated that patients were being treated free at

the clinic, who were able to pay fees to private physicians. A complete record of all clinic work as well as the financial status of the patients was available, and it was found that the particular individual he had in mind was a married man, with a wife and two children, and drawing a salary of \$135.00 per month. This man had syphilis and the charge for administering the arsphenamine in the town referred to was by agreement of the doctors, \$25.00 per dose. The doctor was asked how a man could be properly treated for syphilis at \$25.00 per dose of arsphenamine, and at the same time support a family on \$135.00 a month. He was also asked if he thought it was just to the community to refuse treatment to this man, and thereby permit him to infect his wife and two children. He responded that whether or not others became infected was not any affair of his; that the man was no more entitled to free treatment for syphilis than he was to free house rent or groceries; and that to treat such people, getting more than a hundred dollars a month salary, was taking business away from the doctor who had spent years in learning his profession, etc., etc. Fortunately but few doctors would agree with this extreme commercialized view of the vested rights of a physician to the small salaries of sick persons, especially when the patient has a dangerous communicable disease and is a menace to the community unless properly and promptly treated.

Why were hundreds of clinics established in the United States where venereal diseases could be treated, free or at a nominal cost? Largely because so many quacks were in this field, so many patients were treating themselves with nostrums and because there are many doctors who decline to accept such cases, as it might interfere with their other practice; and because gonorrhea and syphilis are dangerous communicable diseases, which spread unless promptly and properly treated. It is obviously the duty of the State to provide facilities for securing prompt and efficient treatment for communicable diseases under such conditions. There is a way, however, to avoid the extension of Governmental aid in securing treatment for sick people, and settle forever this talk of "State Medicine." The doctor himself is the only one that can provide the brains for solving this problem.

There has been a great deal of talk about "State Medicine" but very little written on the

subject, except articles showing that there is no such thing; that the State and other Governmental agencies merely endeavor to supply a community need and to promote the general welfare of the citizens of the State. This ghost of "State Medicine" can be finally and effectually disposed of when the doctors of this country perform the public health functions of the community. Every practitioner of medicine should be a health officer to his clientele. If doctors would see that their patients are vaccinated against smallpox and typhoid fever; that children are protected from diphtheria by toxin-antitoxin treatment; that focal infections are avoided by removal of tonsils; that communicable diseases in their practice are properly controlled; there would be no reason for the State to step in to protect its citizens.

Every person in the United States has some doctor to whom he can go for treatment in time of sickness. The rich get many specialists to attend to their physical ailments; the poor go to dispensaries or clinics and the great number of people in moderate financial circumstances nearly all have some doctor that they regard as their medical adviser—*when they are sick*.

If every physician in the United States could make out a list of all his patients, and then assume the responsibility of keeping them well, there would be little work left for the Health Department and official clinics. This does not seem to me an impractical plan. The idea of a routine physical examination of everybody once each year gives the starting point for this sort of work by the private practitioner. To be of any value at all, such an examination should be complete in all its phases; so that the patient would know he was getting value received for the fee he would pay his doctor. Such an examination would disclose to the physician all the many remedial physical defects, especially of children; it would enable him to detect cardiovascular abnormalities; renal diseases, incipient tuberculosis, cancer in the easily operable stages; latent or chronic venereal infections; and a whole long list of conditions that would convert the examinee into a patient. Then every doctor could daily furnish examples of that old proverb—"an ounce of prevention is worth a pound of cure."

If the examination did not result in finding some physical condition requiring treatment, it

would practically always offer an opportunity for advice in regard to diet, exercise, hours of work or play, change of occupation or habits, personal hygiene suggestions, directions for avoiding infections, vaccinations against smallpox and typhoid fever, immunization for diphtheria, and scores of other health promoting topics. Special tests that might be found advisable such as a Wassermann test, basal metabolism test, test meals and x-ray examinations and the various procedures for developing artificial immunity to disease would of course be paid for by the patients in addition to the examination fee.

Why should not the private practitioner do this health work for his patients? Why should a doctor treating a case of typhoid fever permit the undisinfected stools and urine of his patient to be thrown out to infect a milk or water supply or be carried by flies to other persons and thus spread the disease? Why should a doctor write a prescription for some astringent solution for a gonorrhea patient and tell him nothing of the danger of spreading his disease to others? Why should he administer one or two doses of arsphenamine to a syphilitic, and then let the patient pass from under his observation? Why should the doctor not urge parents to immunize their children against smallpox and diphtheria? Why should he not advise the removal of adenoids and enlarged tonsils, the correction of defective vision; the proper diet and exercise for children of his patients?

In my opinion, the main reason for the present neglect of public health work by doctors for their own patients has been the defective training by the medical colleges in former years. Medical training until recently was limited almost entirely to the diagnosis and treatment of disease. An occasional lecture was all many colleges gave on "Preventive Medicine," or as it was actually called in the college I attended, "State Medicine." Happily that system of education for the doctor is rapidly changing and the men that qualify as physicians in the future will have a vision of their civic responsibilities that was entirely lacking a decade ago.

When every doctor is the health officer for his own patients there will be no more talk of a dreaded calamity that may befall the private practitioner by making him an unwilling cog in a great machine labeled "State Medicine." Of course, clinics for free treatment of actual indi-

gents will always be needed, but such clinics will be of help to the doctor who has an idea of public health and his civic responsibility, because he will have a place to which to send some of his charity work.

What has this discussion of State Medicine to do with the present status of venereal disease control? Just this: there has been a great deal accomplished in the field of public health effort to control gonorrhea and syphilis. This development cannot proceed to its full fruition without the active and whole-hearted support of the medical profession. An explanation of the aim of clinics, and a clear idea of the place of the practitioner in public health work should be of help in securing the support of physicians in this most important field of hygiene.

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CORNEAL INJURIES IN INDUSTRIAL OCCUPATIONS*

PAPER NO. TWO

FRANK ALLPORT, M. D.
CHICAGO

Among the most frequent accidents to the eye encountered in industrial work are those cases where small foreign bodies are driven into the eye from emery wheels or other causes, and find lodgement either in the ocular cul-de-sac, or in the eye-ball itself and usually in the cornea. If the particle is in the cul-de-sac, it can either be found floating under the lower lid, or more usually, on the conjunctival surface of the upper lid, midway between the inner and outer canthi, from whence it can be easily removed by a cotton loaded toothpick, after the upper lid is everted. But if the particle is imbedded in the eye-ball (and usually in the cornea) an entirely different condition confronts us. This kind of work should always be done under strict aseptic conditions, with clean hands and instruments, with local anesthesia, with concentrated illumination, with good light, and with strong magnifying glasses. I think I have seen more sad ocular outcomes from a neglect of these precautions than from any other one cause, and yet, this kind of work

*Read before The Chicago Medical Society, Dec. 6, 1922.

is regarded as "*trivial*" by those who *should* know better.

Let us suppose that a foreign body has found lodgement in the cornea (and that a pigment spot in the iris has not been mistaken for a foreign body on the cornea—a mistake that is not infrequently made). Two conditions should be ascertained, viz: the *location* of the particle and the *depth* of its situation. If the invader is lodged *outside* the ordinary pupillary area, the situation is much less serious, but if it is lodged *within* the pupillary area, the case must be regarded with more apprehension. The reason for this is the extent and density of the scar that is so often the result of the operation of picking these particles from the tissues of the cornea.

The problem that confronts us is to remove the foreign body with as little corneal damage as possible, and without producing infection. Fortunately most forcibly driven particles are in themselves aseptic, rendered so by the friction of the blow, and the rapid passage through the air. Particles that fly through the air, however, from a smoke-stack, dirt from the streets, etc., are usually septic, and may be the initial cause of infection. They fly through the air, and perhaps lightly lodge in the cornea, or are rubbed in by the patient rubbing his eye after the accident, instead of leaving it alone, or washing it out, or lifting the lid, or going to an oculist at once for relief. Objects of this kind can usually be easily brushed from the cornea (after anesthesia) by cotton tightly twisted on a toothpick, and moistened in a mild antiseptic solution. Afterwards the eye should be irrigated, and argyrol solution and a bi-chloride ointment used, and this will usually be the end of the case.

But when the foreign body is firmly lodged in the corneal tissues, an entirely different situation confronts us, for the object must then be picked out of its bed by an instrument such as a spud or cataract knife. The surgeons hands, instruments, etc., should be strictly clean, the eye should be freely irrigated with boric or some such solution, the eye should be anesthetized, the light should be ample (either gas or electricity) and focused upon the spot of operation by a strong convex lens held by an experienced assistant. The operator should magnify the illuminated spot by a strong convex lens held in his own hand through which he should look. He is thus working in an illuminated magnified area, and thereby

to the best advantage. Some foreign bodies can be easily picked out with little or no corneal laceration, others require great experience, patience and ingenuity for their removal. Some are covered by a real corneal flap, others are so deeply imbedded that there is great danger of rupturing the cornea in the effort at removal, in fact, this unavoidable accident does sometimes occur, and the particle may drop into the anterior chamber, rendering an operation for its removal by a magnet or otherwise, necessary. If it is steel, the magnet will withdraw it. If not, the opening of the cornea with a keratome may give it an impulse to present at the opening, from whence it can be picked out with forceps, or, it may be necessary to wash out the anterior chamber with an irrigator, in hopes of flooding the invader out, or sometimes it will be imperative to remove the foreign body through a keratome opening, by delicate toothless forceps. Jackson and others have devised magnifying glasses to be worn on the head, thus giving one the use of both hands.

In removing obstinately lodged foreign bodies, the greatest care should be exercised to do as little damage as possible, remembering that every scratch of the knife will leave a scar, and that eyesight will be impaired in direct proportion to the amount of scar tissue produced. This is especially true, of course, when the foreign body is lodged in or near the pupillary area. It is difficult to describe just how the foreign body shall be removed by the knife or spud. I think that experience is the best teacher. Three rules, however, should be observed: 1. Get the instrument *under* the foreign body if possible and *lift* it out. 2. Injure the cornea as little as possible. 3. Always work under ample and concentrated illumination. The eye should, of course, be thoroughly anesthetized, and foreign bodies and corneal abrasions can always be better seen if a fluorescein solution (two per cent.) is dropped in the eye, and then partially washed away by a bland irrigating solution. Personally, I like to stand behind the patient with his head resting on a head-rest or my own breast. It is sometimes difficult to find the particle, it is so small, and the patient should look in all directions, and hold the eye as quiet as possible. Sometimes a particle can only be seen by getting a profile view of it, assisted by the staining properties of fluorescein, and one should be careful not to

mistake a pigment spot in the iris for a foreign body in the cornea—a mistake that is not infrequently made—and (unfortunately) acted upon. After every particle of foreign material is removed (and the invader sometimes breaks up into a number of pieces) it is advisable to look the cornea over and see what has happened. Sometimes the foreign body is hot when it reaches the cornea, and is driven into its tissue, and a brown eschar is formed all around the site of injury. Authorities differ as to the advisability of removing this eschar. Some believe in leaving it alone, that it does no harm, that it is an actual protection to the underlying cornea, and that it will fall off in due course of time like a scab. Others believe that it acts like a foreign body and should be removed, which is easy to do. Personally I incline to the former belief, but I remove the eschar for the simple reason that inasmuch as the eschar is dark brown in color and looks like a foreign body, the friends of the patient invariably discover it and tell him that I have not removed the foreign body and do not understand my business. I have tried leaving the brown eschar many times but have been compelled invariably to take it out the next day on account of the dissatisfaction of the patient and his friends. Unless the foreign body is removed easily, the cornea is more or less damaged and needs attention. In the first place, the particle itself has injured the cornea by nesting in its tissues. Then the spud or knife (even where great care is exercised) injures the corneal tissue to a greater or lesser degree. Besides this, if the particle has been lodged for sometime, especially if it carried infection with it, a state of ulceration has already begun, and serious consequences may ensue, especially if proper and vigorous treatment is not begun immediately. Where there is no ulceration, and hardly any corneal abrasions, the case may be treated with irrigation—argyrol solution (20 per cent.) and bichloride ointment, and watched for a day or two. But if there is ulceration, or the cornea is much injured, it is advisable to gently touch the pathological tissue with carbolic acid. For this purpose a very fine end of a toothpick is used, and a very little cotton is tightly twisted on the point. This is dipped into carbolic acid, the superfluity of which is wiped off by touching it to a piece of gauze. The acid is then applied gently to the abraded cornea, and if the directions

here given have been followed, the acid will not “run” or invade the healthy corneal tissue. Sometimes, however, if the ulceration has already begun, and is active, it will be well to have the cotton loaded toothpick act not only as a cauterant, but also as a curette, scraping up the dead tissue, and cauterizing the diseased area as well. The eye should then be irrigated—argyrol 20 per cent. solution instilled, also atropine solution and some bichloride ointment put in the eye and a gauze and cotton pad put over the eye and held in place by adhesive strips.

Concerning the bichloride ointment, I use an ointment prepared by the Manhattan Eye Salve Company of Louisville, Ky., that possesses a strength of 1 to 3000 bichloride. This is the only ointment of this kind I have ever used that does not irritate the eye, and this does not. It comes in convenient little tubes, and the ointment is squeezed out from the end. It is so unirritating that I use it after all eye-ball operations, including cataract operations. This same ointment is also prepared with atropine, and we call it atropine and bichloride ointment. It is very useful where we want the effects of atropine and the antiseptic qualities of bichloride.

I consider it very important in these cases of corneal injuries, that the eye be protected by a pad. This prevents irritation and infection from the air, and the invasion of the eye by additional and irritating foreign bodies. This is the time to protect the eye from serious trouble, and if a few hours of protection and quiet will produce a healthy eye, then by all means give the patient the benefit of the wiser course. Of course when a foreign body can be brushed off from the eye with some cotton, there is no necessity for ordering a detention from business, but when there is any danger in sight, by all means give the patient the benefit of the doubt. I have had ignorant and selfish employers write me abusive letters for not returning employees immediately to work, when I am only trying to protect them from paying heavy damages for lost eyesight, and at the same time conserve the vision of the unfortunate injured man. If all goes well, the man may be returned to work the next day, but if there is any corneal abrasion as shown by the fluorescein staining, the man should remain under treatment until the cornea is completely healed. Corneal ulcerations are dangerous things. Ulcers and scars may occur in other parts of the body

and no harm is done, but once infection of the cornea gets under way, it may spread with incredible speed, and in a few days the eye may be ruined or enucleated, or, at the best, dense extensive scars occur that produce much loss of vision and even blindness. Let no one speak flippantly of apparently trivial corneal injuries. There is no such a thing. They all possess potential possibilities that *should* create anxiety until the safety point is reached. It may be necessary from time to time to use other cauteries than carbolic acid. For instance, I sometimes use equal parts of carbolic acid and tincture of iodine, and sometimes fuming nitric acid, although great care should be exercised in its use, and as little used as possible. I have, of course, used a good deal the actual electric cautery, but it is so easy to puncture the cornea while using it that I have not used it much of late. Dr. Prince of Springfield, Ill., has devised an instrument which he calls a "Pasteurizer." It is a cone-shaped mass of steel with a handle attached. The cone is heated in a spirit lamp until it is white hot, and then it is held a short distance from the ulcerated cornea. This is supposed to kill the bacteria. I have tried this instrument a good many times and have been disappointed in its use. Maybe I have not used it just right. I, however, like the instrument very much for applying the actual cautery to a corneal ulcer. I heat it in a spirit lamp and then touch the ulcerated areas with the apex of the cone. The apex is rounded and blunt, and there is not near the danger of perforating the cornea that there is when the delicate heated electric wire is applied to the cornea.

In the treatment of bad corneal ulcers and their sequelae, I have been much disappointed in the use of subconjunctive injections of bichloride, salt, dionin, etc. They are all painful, especially the mercurial injections, and patients almost invariably attribute all the disasters that follow to the injections. After giving them all a fair trial, I have abandoned them, and I can say the same of the sub-cutaneous injections of milk. I do not use it any more, and believe that its beneficial influence has been much exaggerated. Remedies of this nature sometimes acquire an undeserved reputation by ardent experimenters because a case or two have done well while they have been used. This is no proof at all, but

nevertheless does not deter them from rushing into print with glowing accounts of the wonders that have been performed. Prolonged use and much experience with careful and conscientious observations, alone warrant a man in claiming definite results for any remedy, surgical or otherwise.

What then do I do for these dreadful cases of deep sloughy corneal ulcers, followed frequently by hypopyon, or pus in the anterior chamber, iritis with adhesions, panophthalmitis, and enucleation? I search for outside causes such as syphilis, kidney lesions (for diabetes sometimes plays a conspicuous etiological role in the tragedy) diseased teeth, tonsils, sinuses, lacrymal diseases, etc. X-ray pictures and modern transillumination are of great assistance in searching for these causes. If I find any focus of trouble I try to relieve it as far as is consistent with the patient's ocular condition. I have seen removal of the tonsils or diseased teeth, and draining of some of the head sinuses play a wonderful part in some apparently hopeless cases of ocular infection. I put the patient to bed and give him a cathartic and plenty of water to drink. I regulate his diet and see that he is not overfed. I give him about 120 grains of salicylate of soda in 24 hours, and direct that he shall have a mercurial inunction once a day, rubbing in with the palm of the hand a piece of mercurial ointment about half as large as a peanut, for 15 minutes by the clock, into some hairless portion of the body, and then washing off what is left with soap and water. The place in the body should be changed from day to day to avoid dermatitis. If he has trachoma or hypertrophic papillary conjunctivitis, I give him everted lids a thorough brushing with a toothbrush and boracic acid powder two or three times a week, and have helped many very stubborn cases by this procedure. Where trachoma and corneal ulceration occur in the same eye, copper crystal, strong solutions of silver nitrate, etc., should not be used. They frequently *increase* the ulceration. To the inexperienced, the exclusion of copper, etc., and the inclusion of tooth brushing the lids may seem like curious advice, as at first thought, the tooth brushing process would seem to be more severe than the copper crystal treatment. This presumption, however, is erroneous. Tooth brushing or "Brossage" is *not* irritating. Its bene-

ficial effect on the ulceration is sometimes immediate. The smoothing of the palpebral conjunctiva and the hemorrhage from the brushing, have an antiphlogistic and soothing effect upon the ulcer, while the brushing of the lids with the copper crystal, even if thorough irrigation is used thereafter, seems to produce a lingering and potent irritation, extremely detrimental to the integrity of corneal tissue. The brossage should be followed, of course, by suitable treatment for the lids. The ocular secretions should be examined in the laboratory, and this will sometimes guide us to the best remedy to use. I may say, however, that most of these cases require rather strong solutions of argyrol, probably about a 25 per cent. solution. The tear ducts should be carefully examined for pathology, and if disease is found, it is best to open the lower canal, pass a large probe, and in a few days to irrigate the canal with an antiseptic solution such as argyrol. These irrigations should not be made for several days, however, for if liquid is passed through the passages before the cut surfaces have healed, the liquid is apt to pass into the neighboring tissues and produce an ugly swelling—and if argyrol is used, an indelible staining of the tissues. The nose should also be examined and if ethmoidal disease, a badly deflected septum, polypus, or other obstruction or disease is found, steps for relief should be promptly taken.

If he has syphilis, I see that he has proper treatment. I cauterize the ulcer from time to time as seems necessary with chemical cauteries or the Prince cone. Cauterization, however, can be carried too far and should not become a routine habit with the surgeon. The eye should be given a chance to get well, and sometimes too much cauterization blocks recovery. In my hospital we use what is called the intensive treatment in such cases. This consists in using a drop of one per cent. atropine solution every five minutes for half an hour (six applications). Where atropine is used so freely, great care should be taken to prevent constitutional effects. The nurse should stand behind the patient and pull up the upper lid. She should then allow one drop to flow over the cornea, and then press the tear duct for a moment with the finger to prevent the atropine running down the tear passages into the nose and throat. In this way

the danger of constitutional effects will be reduced to a minimum. Meanwhile, during the half hour period, heat is continually applied to the eye. I prefer an electric bulb with gauze around it, but if this is not possible, hot water may be applied with thick gauze cloths or with a hot water bag. The heat should be as strong as the patient can bear. At the end of the half hour of atropine and heat, dionin should be used, commencing with a five per cent. solution. A ten per cent. solution will soon be necessary, and then even the powder. A marked edematous condition of the conjunctiva should be produced, and dionin soon wears out its power on one individual, and increased strength from time to time becomes necessary. When even the powder no longer produces edema of the conjunctiva, it may be stopped, for it is no longer useful and is only an irritant. In ten or fifteen minutes after the dionin has been used, the treatment may end by putting in the eye some bichloride and atropine ointment. This completes the treatment, but it should be gone through with three times a day. If atropine produces unpleasant effects, its use will have to be diminished, or even stopped, at least temporarily. If it is thought that the dionin is producing too much irritation, it can be used only once a day. Argyrol solutions may be used during the treatment. Almost all cases of ulceration of the cornea will yield to this treatment, but occasionally cases are seen that progress toward more and more pathological changes until the eye is ruined or enucleated. I have often thought that good results were obtained in these bad cases by the use of pilocarpine or other sweats. They should be given daily for a few days and then at intervals. When pus forms in the anterior chamber, the treatment just outlined will frequently dissipate it. But, of course, in many cases the pus remains and increases in volume. In such cases I open the lower portion of the cornea at the floor of the anterior chamber with a rather broad keratome, and wash away the pus, with warm normal salt solution and my anterior chamber irrigator. This will sometimes stop the progress of the disease, but unfortunately many of these cases are so virulent in their nature that pus reaccumulates, and the eye is lost from a general panophthalmitis and enucleation becomes necessary. This, then, is the end of many cases of

neglected or poorly or even well-treated minor corneal injuries. The lesson to be learned is—let such minor injuries be properly treated from the very start.

In a subsequent paper I will take up the subject of "The Invasion of the Interior of the Eye by Foreign Bodies," constituting the third paper of this series.

7 W. Madison St.

PRACTICAL POINTS OF INTEREST IN EMBRYOLOGY AND THEIR RELATION TO KIDNEY SURGERY*

GEORGE VAN AMBER BROWN, M. D.

DETROIT, MICH.

During a surgical experience covering a period of over a quarter of a century I have, as the years come and go, been more and more impressed with the incidence of fetal mal-development and its bearing on surgical pathology. I have also been persuaded that the importance of a knowledge of embryology is not sufficiently emphasized in the training of surgeons. To-day, in their instruction, steps should be taken to remedy this existing defect by the better balancing of embryological teaching. Embryological inquiry the surgeons must leave, greatly, to the work of the embryologist; it is the surgeon's duty to know what is known and to apply it in a practical way to his work.

In the past year I have made necropsy studies, both gross and microscopic, of one hundred and ten young infants and fetuses, special attention being paid to the urinary system. Anatomic variations found in the urinary tract were surprisingly common and of such a character that their surgical importance cannot be disregarded. Brief reference will again be made to this work. What applies to delineations of the urinary tract as having a direct and practical surgical bearing extends to other organs and structures. There is, therefore, great need of an extensive study of the aberrant development in the various organs and regions of the body. One irregularity in development is frequently associated with another. One embryonic defect suggests more. It means malcoordination. A dimple is to be regarded as a stigma. If so small a stigma as a dimple is observed, one should not operate with-

out at least being prepared to encounter other and greater mal-developments. Such a method of approach may sometime save the surgeon considerable embarrassment.

Embryology is that department of biology which deals with the development of the individual organism. It is a succession of studies in anatomy and physiology which when read into unity, give the history of the organism from its earliest individual appearance on to that vague point when it may be said to exhibit all the main features of adult life.

From the time of Greek science until our own day, no other problem has interested the scientific investigator as much as that of animal development. Galen, the founder of experimental medicine, a noted physiologist, anatomist, physician and surgeon, whose life directed the trend of medicine for six hundred years, was profoundly interested in embryology, and be it noted here, that in the second century he described the foramen ovale and the ductus arteriosus and showed them to be physiologically associated as well as their being peculiar to the fetal condition. He was a close student of the embryology of the chick. His works are a gigantic encyclopedia of the knowledge of his time, including nine books on anatomy, seventeen on physiology, and six on pathology.

In the seventeenth century Harvey who towered masterfully above his contemporaries published his treatise "De Generatione Animalium" (1651). Long before Wolff and Von Baer, his investigations of the embryo, characterized by minute and patient work for years, resulted in his firm adherence to the pure doctrine of epigenesis—that the organism does not exist encased or performed in the ovum, but is evolved from it by gradual building up and aggregation of its parts.

John Hunter, pathologist, physiologist, anatomist, surgeon, whose life dominated the eighteenth century and whose genius to this day sways and inspires us, insisted that a foundation in medical knowledge could be acquired only from an exhaustive study of comparative anatomy in both animal and vegetable life. He began with fundamentals, and insisted that a thorough knowledge of embryology is essential to an intelligent pursuit of anatomy. He might have added that such a knowledge of embryology is wholly as essential to an understanding of physiology.

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Hunter aimed to connect morphology with physiology by studying the relation between structure and function. He held that structure is the ultimate expression of function, that abnormalities are an expression of arrested development and that the embryo in each successive stage of its existence resembles the completed form of some order lower than itself. This necessarily leads to the basic principle of comparative physiology: that the functional activities of the lower forms of life are, as it were, simplifications of those in the higher. In all this Hunter was sound and modern.

One could go on and on, giving not a few, but many names familiar to us all because of glory achieved through the making of epoch-marking advances in surgery—advances made through a knowledge of the important inter-relationship between embryology and surgery. W. J. Mayo looking into the future says, "If I were to write a book I should take up the fascinating story of embryology, anatomy and physiology in relation to the surgeon of tomorrow."

Experimental Embryology. Studies in experimental embryology show, impressively, to what extent mechanics may influence the fetal development producing at times disturbance of this normal function with resultant development which later becomes of surgical significance.

In 1884 Born showed that gravity brings about a rearrangement of the contents of a rotated egg, in proportion to their specific gravity.

Pfluger in 1884 showed that compression of the unsegmented egg between two plates of glass modifies the planes of cleavage according to the direction of pressure.

Later in 1892 Hans Driesch showed that continued pressure applied to an Echinus egg can produce a flat plate of sixteen or thirty-two cells which will proceed to normal development in the three dimensions directly the pressure is removed.

In 1888, Roux published his celebrated experiment of killing one of two initial blastomeres with a hot needle, producing a typical half embryo.

Driesch, however, found in 1891, that if the two blastomeres could be separated and set free by shaking, the segmentation of each would go on unilaterally up to the blastula stage, after which the open side of the latter would close over, resulting in a fully developed but small sized embryo.

Thomas Hunt Morgan, by rotating the surviving blastomere in Roux's hot-needle experiment, so that the white pole was turned upward, produced a whole embryo of half size (1894), showing that the completed development was due to a rearrangement of the contents. Schultz in 1894, produced double monsters by inverting a fertilized frog's egg between two glass plates, so that the dark pole of the egg came uppermost.

In 1895 Driesch and Morgan, by cutting off a piece of the protoplasm of a centrophor egg, prior to segmentation, without damaging the nucleus, produced the same half embryo which ordinarily results from isolating the blastomeres of this egg.

In 1889, Boveri had succeeded in fertilizing a non-nucleated piece of sea-urchin egg with the sperm of another species. All this indicated that the protoplasm, rather than the nucleus, is the principal agent in the production and regulation of form (morphogenesis).

Herbst pointed out (1894-1901) that the formative and directive stimuli are usually external in plants and internal in animals.

Driesch formulated his quantitative theory of cell-division, viz., that the "prospective value" of any embryonic cell is simply a function of its location; and that protoplasm is a "polar bilateral structure" capable of regulating its development symmetrically in any of the three dimensions of space, also a "Harmonious equipotential system" having the same potency for development in all its parts.

From the totipotency of protoplasm, Driesch argued that its functions can never be explained mechanically, since a machine, the smallest part of which is identical in structure and functional capacity with the whole machine itself is unthinkable. The same sharp distinction which is made in mechanics and patent law between a "tool" and a "machine" is therefore, to be observed between a machine and a living organism or substance, since the former is always a clumsy imitation of the later.

It is a well known fact that through one single spermatozoon, which is so minute that five hundred millions of these cells would hardly occupy one cubic millimeter, all the physical and intellectual peculiarities may be transmitted from father to son or, even skipping the son, may again reappear in the grandson. If this is really a mechanical process, how wonderful must be the molecular structure, how complicated the inter-

change of forces, how intricate the forms of motion, as well as the mode of development for generations! And how shall this minute structure transmit mental qualities? Here we are utterly abandoned by physics, chemistry, and anatomy. Yet, with all this, there are many errors in development which can be accounted for only on a basis of mechanics.

We have already seen that if, in the two-celled stage of the frog's egg, one cell be destroyed by means of a hot wire, the other cell develops to form half an embryo. This limitation of development however occurs only if the intact cell be left in connection with the cell that has been injured. If, in echinoderm larva, the cells be entirely separated, each cell will, even as late as the eight-celled stage of division, give rise to a whole embryo differing from the normal only in size. These experiments suggest that for perfect development there is necessary, not only a protoplasm (including the nucleus) of the proper nature, but also proper environmental conditions to which the embryo, in its rapid growth, is subjected. Both these requirements are essential to fitness, and let it be said here that the fitness which characterizes the normal living mechanism exceeds by far the most superlative degree of precision instilled into any inert mechanism. We shall see that there is no fitness like a living fitness and, too, that this fitness cannot exist without a normal embryological foundation. A perverted embryological environment is the forerunner of a perverted function.

As stated previously, variations in the anatomy of the human body are not uncommon. And since it will be impossible, for obvious reasons, to deal with the whole field of anatomic deviations in relation to surgery, the discussion is here limited to sketchily outlining some of the principles that connect up with surgery of the kidney, many anomalies of which depend for explanation upon a knowledge of embryology and could not otherwise be understood. It is, therefore, thought well to preface the consideration of pathological conditions covered in this paper, by a brief review of the normal kidney formation.

In development there are three successive series of nephridial structures. These are known as the Pronephros, Mesonephros and Metanephros. All three are closely related in development and structure, but are distinguished by differences in origin and in the finer details. All

three arise from the Wolffian ridge. The Pronephros is the first to appear, representing, in development, the kidney of the larval amphibian; the Mesonephros is the second, and represents, developmentally, the permanent kidney of fishes. While this is functioning temporarily in the human as a kidney a structure is developing from the lower caudal end of the Wolffian duct which is known as the Metanephros or permanent kidney. Development of the permanent kidney begins about the fourth week of embryonic life with a differentiation of a group of cells situated at the lower portion of the Wolffian ridge, called the nephrotome or mesonephric blastema. These cells quickly give rise to the formation of rudimentary glomeruli and a tubular system which soon becomes united to the pelvis and the ureter, about and around the growing ends of which this kidney blastema lies. The kidney acquires its characteristic features by the end of the second month of fetal life, and reaches its permanent position by the third month.

In early fetal life the developing urinary bladder and rectum are one. The Wolffian duct opens into the anterior portion of the cloacal cavity. From the dorsal aspect of this duct, at its cloacal end a small diverticulum, grows forth, lengthens into a tube, from which is developed the urinary collecting system. This tube which grows headward dilates later to form the adult renal pelvis of the kidney while the duct eventually becomes the ureter. The pelvis branches and rebranches ascending to and penetrating the nephrogenic tissue or blastema. Thus the entire system of tubules, together with the pelvis and the ureter have a common origin from the caudal end of the Wolffian duct while the blood vessels and the connective tissue, as well as the capsule, originate from the surrounding mesenchyme. The blind end of each convoluted tubule, becoming dilated and saccular, is invaginated by a tuft of capillary blood vessel this being converted into a capsule of Bowman. The invaginating mass of blood vessels constitutes a glomerulus, and glomerulus and capsule of Bowman together make up a Malpighian corpuscle.

It is here that the collecting portion becomes attached to the secreting portion by climbing up the ladder of the blood supply of the nephrogenic substance.

The kidney then, is embryologically of double origin and has a saltatory development, rapid fire

changes diverse in character taking place: the pronephros becoming completely obliterated; the mesonephros partially disappearing, while at the same time the metanephros or permanent kidney is undergoing development, involved in which is the connecting up of the ascending collecting system with the secreting system. In this complex nephridial development, this rapidly moving divisional change has to fit into a definite period of development of the entire organism. Failure, in the harmony of development, in any detail, necessarily leads to malformations.

Malformations. The most frequent malformation of the kidney tissue is the formation of cysts. Practically all kidney cysts may be traced back to congenital tissue malformations (Ruckert). These cysts may vary in size from that of a hemp seed to that of an orange.

Failure of connection between the ascending portion of the collecting system, and the secreting portion so that the urine when filtered, is not freely admitted into the collecting tubules, produces the so-called congenital polycystic kidneys that are eventually associated with chronic nephritis. Cystic kidneys are usually bilateral, seldom unilateral; still more seldom are they partially confined to one or more reniculi. For the most part it is the cortical layer which seems to be entirely involved in the cyst formation, seldom the medullary substance. Usually enough functioning substance is preserved so that a person affected with such kidneys can reach a reasonably advanced age.

That in the case of cystic kidneys there is involved a deep disturbance of growth is proved by the heredity of malformation. This is further proved by the frequently associated occurrence of other slight or marked malformations of the uropoietic system as well as of other organs: cystic liver, testes, pancreas, and of the entire body (Aschoff). Knowledge of these embryologic truths has had a wholesome influence, surgically, upon this type of kidney.

A second frequent malformation of the kidney tissue is exhibited by the so-called adenomata. This condition is simply mentioned in passing as is also the medullary fibromata.

Another maldevelopment to be reckoned with is that cited by Wilson: "Some of the mesothelial or secreting portion of the kidney may not become connected with the collecting portion, and may then retain its embryonic type, forming a

mesothelial rest from which may develop so-called "hypernephroma," or, more correctly, "mesothelioma of the kidney."

Malpositions. Under the malformations which affect the kidneys as a whole, the first to be named are the congenital dystopia (Malpositions). These generally occur unilaterally and are attributable to the disturbance of the cranial migration of the kidney, or to be more accurate, to a disturbed development of the caudal end of the nephrogenic cord tissue, the ureteral bud or sprout. The affected kidney lies abnormally deep, for the most part over the sacroiliac articulation or in the pelvis (Aschoff). It is also unnatural in shape, abnormally lobulated, more or less flattened, lumpy, with the hilus turned forward. The blood supply is aberrant. Malposition of the kidney is not so serious if it can but carry on its function, but malposition may lead to injury. Such a kidney may be mistaken for an ovarian cyst or other tumor. This anomaly may also interfere with the mechanics of labor in the adult female.

Excessive kidney mobility may be caused by imperfect fetal development, the kidney having a meso-nephron and becoming an intra-abdominal organ. This condition is not to be considered as a disease unless there is kinking of the ureter by a band of connective tissue or an aberrant blood vessel, kidney function being disturbed or other organs interfered with by this abnormal mobility. Floating kidney in either of these conditions indicates surgical interference.

Occasionally we find cases in which both kidneys lie on one side where the lower kidney is more out of position and more markedly malformed, and is occasionally fused with the upper one. Here a development of the ureteral bud toward the wrong side must have taken place (Lit. Verocay). More frequently, however, there occurs a fusion of both kidneys at their lower poles, even though they are lying at a normal height thus forming the so-called horse-shoe kidney. The fusion may be more or less extensive and may or may not involve the kidney pelvis. The kidney hilus is turned forward. The ureters which may vary in number (1-4), extend from the front over the kidneys to the bladder. The blood vessels show different anomalies of origin as well as of distribution (Anitschrow). With all these dystocia the position of the suprarenal glands remain unchanged. The importance in

diagnosis of such dystocia when present if surgical interference is under consideration needs scarcely to be mentioned.

Hyperplasia, Hypoplasia and Aplasia. Hyperplasia and aplasia play a more important role clinically than all other malformations except dystopia. It is seldom that both kidneys are absent. There is quite frequently an absence or an imperfect development of one kidney, but whether the right or the left kidney is more often affected is not yet thoroughly established. In aplasia the ureter of the affected side is also missing. In hypoplasia, there sits upon the ureter or incompletely developed kidney pelvis a cherry-sized mass, which microscopically shows some immature kidney structure. Congenital hyperplasia is usually displayed in bi-partate (seldom tri-partate) ureteral buds. The lower part forms an ordinary kidney pelvis with a normal kidney, the upper only half a pelvis with half a kidney, which rests upon the other kidney. The division of the kidney anlage may exhibit very different stages. There is seldom complete division into several kidneys. Congenital hyperplasia may occur on one or both sides.

Persistence of fetal lobulations leads to a marked degree of tissue malformation of the kidney. The so-called severing of the kidney vessels, which is connected with the migration of the kidney, is frequently evidenced by the persistence of a second renal artery at the lower kidney pole. The vessels may cross the ureter ventrally or dorsally. Such anomalies present to the surgeon special problems with which he must deal carefully.

Pelvis and Ureters. The division of the pelvis into several tubes connecting with one or two ureters is normal in the otter and beaver. Occasionally in the human there is an arrest in development so that the parallel condition persists. With two kidneys present there may exist three or four complete ureters or partial ureters. Splitting of the collecting portion at the Wolffian duct causes double ureters and fused or separated double kidneys on one or both sides.

In case of ectopic ureteral orifice, one is guided surgically by the conditions present in the individual case. Cases opening into the urethra and presenting incontinence, and all cases opening into the vagina or about the vulva are of the utmost practical importance.

With our modern methods of catheterization

roentgenography, functional, chemical, and microscopic tests, we should be able to determine how many ureters are present, their courses from kidney to exit, and the value of the kidney substance drained by each ureter. Equipped with such data we can decide whether operation is indicated and whether it should be the radical extirpation of a kidney or of a diseased half kidney, or whether we should attempt to divert the abnormally placed channel into the bladder.

In the transplantation of ureters, for any cause, where the urinary bladder cannot be utilized, it would appear, since originally the gut and the urinary tract were one, that the logical field for this transplantation would be the large bowel.

Malformations of the Urethra. Malformations of the urethra assume a definite role in the etiology of pathologies of the kidney. The early recognition of congenital obstruction to urination in the male child is a matter of paramount importance if therapeutic measures are to be followed by any appreciable benefit. Fortunately congenital narrowing of the urethra that possesses a definite clinical bearing is not often encountered. Partial occlusions of the urethra by a membrane over the external meatus are so readily recognized and as easily remedied that they are deserving only of scant clinical interest. Deep within the urethra itself, however, obstructions may pass unrecognized for months or even years and while they may be suspected during life, they are usually confirmed only at the post mortem table. The valve formation causing the obstruction is due to the growth and attachment of the tip of the colliculus to the roof of the urethra (Watson). Hydroureters and hydro-nephrosis are natural sequelae to this condition.

In dealing with a renal pathology of obscure etiology the surgeon should consider all manner of developmental defects. A supernumerary rib may be an important causative factor. Of great importance in connection with operations on the right kidney is that during fetal life, the position of the duodenum is altered by rotation and its third portion becomes retroperitoneal, a fact of great importance in connection with operations on the right kidney. Unless care is exercised in performing a nephrectomy in cases in which there is chronic inflammation around the pelvis, and especially in malignant disease, the duodenum may be injured, and immediately or a few days

later a fistula forms from which the patient will die unless the fistula is repaired anteriorly by a transperitoneal operation (Mayo). Very scanty mention of this accident is found in the literature.

Let us consider now the importance and frequency of malformations of the urinary system as a whole. The investigations of Motzfeld based on 4500 autopsies show the occurrence of 79 malformations (nearly 2%), 10 of which were aplasia, 11 hypoplasia, 9 horseshoe kidney, 5 dysplasia, 21 hydronephrosis, 23 double ureter.

Out of the study of the urinary tract of one hundred and ten fetuses and infants made by myself records of the first eighty have been completed with the following results:

Of the eighty fetuses and infants, thirty-seven presented some form of outward malformation: nineteen of these showed craniorachischisis; three, hydrocephalus; four, exencephalon; two, meningocele; two deformities caused by amniotic adhesions; two congenital hernia, and one each of the following: synophthalmus, arhinencephalon, cephalo-thoraco-phagus, talipes, meningoencephalocele-occipitalis and one pair of united twins. Malformations of the urinary tract involving the kidney existed to the extent of twenty per cent. of the total number studied, 11.25 per cent. involving the ureters. Six cases showed hydronephrosis, four bilateral (one of which was the result of an imperforate urethra) and two unilateral. Two cases of congenital cystic kidneys were found, one bilateral, one unilateral. Two cases showed deficiency or absence of lobulation, two pressure deformities, and two malposition. Of the ureteral deformities there were five cases of hydroureter, two bilateral, three unilateral, two kinked ureters, and one bilateral tortuous ureter.

Percentage of Pathology Encountered. It is a striking fact that in reviewing the entire material studied, only twenty-five (31.25% of the cases) showed only such slight changes as edema and passive congestion which is confirmatory evidence that the kidney is a vulnerable and exceedingly responsive organ from its earliest stages of development. In this series 68.75% were abnormal, and of this number only nine cases presented negligible alterations. Let it be noted that the material was not selected, but that everything available during this short study period was used.

There is suggestive evidence that a close relationship exists between the kidney and the brain in their development. There was definite kidney and ureteral deformity in each of the three cases of hydrocephalus encountered in this series. One showed bilateral hydronephrosis and one unilateral hydroureter and hydronephrosis. The third showed a left ureter 9 c.m. long, dilated in its entire length to more than a centimeter in diameter, while the other ureter was 2 c.m. long, the kidney being immediately adjacent and posterior to the urinary bladder, which was enlarged and had thick walls. This necessarily suggests the question as to whether a hyperfluidity in the urinary tract bears some intimate connection with the choroid plexus of the brain.

The frequency of kidney malformation in cases of craniorachischisis and exencephalon is also of note. Arrested development or absence of the suprarenal is also frequently a part of this type of maldevelopment. Some research workers have observed that almost every case of craniorachischisis shows absence of adrenal bodies. In the present group of cases, one instance occurred where one adrenal showed delayed development of the cortical zone. The question then that is raised is, is there a faulty metabolism that fathers mal-development of the urinary tract, or what is there that lends itself developmentally to mal-coordination?

This at present we cannot answer. It is only one of many stupendous problems which present themselves for solution. No one knows what moment may bring the crossroads with the finger pointing the way to the answer to any of these mysteries. As an illustration, the recent work of Banting, the discoverer of Insulin, is striking. His mind became occupied with the hope of discovering a cure for diabetes, a problem the solution of which had caused many a thinker's brow to furrow, many a giant worker to be worn. This young man had tried many pancreatic extracts none of which were satisfactory. His thoughts reverted to the field of embryology. He had learned that there are, comparatively speaking, a larger number of islets in the pancreas of a new born animal than in adult life. His first thought was to obtain the pancreas of a new born animal and make an extract therefrom. To quote his own words: "On thinking and thinking about it, I next thought of preparing the extract from the pancreas of an animal obtained before it had

reached its normal development either because of premature birth or abortion. Finally the idea presented itself that if we could obtain the pancreas of a fetal animal, there would in all probability be a time when the internal secretion would be present in the pancreas but that the external secretion would not be present because the external secretion is not used until the time of birth of the animal." This idea was immediately exploited to its fullest extent and to his great joy and amazement he accomplished much of what he had hoped for and though the Insulin is not in itself a cure for diabetes it is an effective weapon in combating that dread disease. Thus Banting, a young surgeon, whose knowledge of physiology, having for its foundation a knowledge in embryology, gave to the medical profession, in his discovery of Insulin, with its therapeutic application, the biggest thing of this century.

In conclusion then, one cannot be sufficiently liberal in estimating the value of a working knowledge of Embryology to the field of Surgery. The many points of contact (a few of which have been enumerated in this paper), that exist between these two branches of Medicine are not to be lightly considered; and it is upon the further investigation of this inter-relationship as well as its establishment on a symbiotic basis that the development of Surgery of the future depends.

Woodward Clinic,
13300 Woodward Ave.

RADIUM EMANATION AMPOULES IN THE TREATMENT OF CANCER OF THE TONGUE

FRANK EDWARD SIMPSON, M. D.

Professor of Dermatology, Chicago Polyclinic; Adjunct
Clinical Professor of Dermatology, Northwestern University
Medical School.

CHICAGO

Cancer of the tongue is one of the most fatal of all forms of malignant tumors. Untreated cases die usually within a year or 18 months from the onset of the disease.

Surgical treatment, i. e., excision of the tongue cancer, has been abandoned by many surgeons. Some surgeons go so far as to say that at the present time surgery has no place at all in the treatment of the primary tongue lesion.

In about one-half of all cases of tongue cancer

that comes under observation the tongue lesion is inoperable from the view-point of conferring benefit upon the patient. It is in these cases that the implantation of glass ampoules of radium emanation is of particular value as it sometimes offers a prospect of relief when surgery is helpless.

In the operable cases of tongue cancer, the present method of using radium seems to be as successful as excision and, according to some authors,¹ is superior to surgical treatment.

Cancer of the tongue, untreated, extends with varying degrees of rapidity to the lymphatic glands of the neck. It is unfortunate that we do not know how long a tongue cancer may exist without extension to the cervical glands. In certain cases the cervical glands may be infected in a few weeks from the onset of the tongue lesion. In other cases as long as 6 months may elapse before the cervical glands are involved.

It is not a little remarkable that tongue cancer, in sharp contradistinction to breast cancer, rarely invades distant organs. The cervical glands seem to act effectively as a barrier in checking the spread of the growth so that death usually occurs in untreated cases before distant metastasis takes place.

Etiology. The exact cause of tongue cancer is, of course, unknown but chronic irritation seems to be an important factor in its development.

The use of tobacco and the irritation of defective teeth seem to be the most important elements in causing tongue cancer.

Some patients with tongue cancer give a history of syphilis.

Certain tongues show evidence of late syphilis such as sclerosing glossitis and on the scars of this disease cancer is prone to develop. It is unfortunate that such cases are sometimes treated for weeks or months with antisiphilitic remedies, the presence of syphilis blinding the practitioner to the fact that cancer has been engrafted upon a syphilitic base. Valuable time is thus lost and the patient's chances of recovery are lessened.

Many patients with syphilitic tongues use tobacco and have defective teeth so that if cancer develops it is sometimes difficult to judge of the importance of each element in its causation.

Diagnosis. The diagnosis of tongue cancer is

¹Read at annual meeting of Illinois State Medical Society at Deacur, May 16, 1923.

sometimes very easy and in certain cases very difficult.

The diagnosis of an ulcer of the tongue usually rests between tuberculosis, cancer and syphilis.

Primary tubercular ulcer of the tongue is very rare, almost all cases being secondary to tuberculosis in the respiratory tract, especially in the lungs.

The diagnosis therefore lies commonly between cancer and syphilis—i. e. gumma.



Fig. 1. Cancer of the anterior $\frac{1}{3}$ of the tongue. Photograph taken in February, 1923, 24 hours after the insertion into growth of 14 glass ampoules, containing total of 9 millicuries radium emanation. Ulcerated area (2×3 cm.) is obscured by edema due to treatment. Patient referred by Dr. D. B. Mark and Dr. S. E. Sweitzer of Minneapolis who confirmed diagnosis microscopically.

Diagnosis measures include clinical findings, laboratory procedures and the therapeutic test.

The clinical appearance of tongue cancer is often sufficiently characteristic for a diagnosis.

The Wassermann reaction is of interest but is not diagnostic as it is common to see cancer engrafted on a syphilitic tongue.

A microscopic section is the final conclusive evidence but unfortunately, according to many

authors, the securing of a section militates greatly against the patient's recovery.

The therapeutic test is somewhat unpopular at the present time, but it is still of great value. If antisyphilitic measures do not make a very marked improvement in a suspicious tongue in less than a week the diagnosis of syphilis alone should be discarded.

Treatment. The radium treatment of tongue cancer has undergone a great evolution in the last 10 or 15 years.

The earliest treatments such as those used by "Wickham and Degrais"² and others, were given with applicators containing about 10 to 50 milligrams of radium. The apparatus was simply applied to the tongue lesion for varying periods of time.

Later, as radium emanation came into use and larger quantities could be concentrated on a small lesion, several hundred millicuries were applied to the surface of the lesion.

Still later, metal needles containing radium salts or radium emanation were used and are still employed—the needles being inserted into the lesion for varying periods of time.

The experience with all these methods did not justify the hope that treatment with radium would ever be of great value in tongue cancer.

In contradistinction to the foregoing methods, the method of implanting bare glass radium emanation ampoules in the lesion has been justified by its success. It has been used by the late H. H. Janeway, Douglas Quick¹ and their associates at the Memorial Hospital in New York, by Howard A. Kelly and his associates at Baltimore, by the writer and many others.

The implantation of glass radium emanation ampoules in certain localized tumors appears to have been first suggested by Duane, Professor of physics, at Harvard University.

The technic of the treatment has already been described by the writer in his book, "Radium Therapy"³. The method consists simply in the introduction into the tongue cancer of glass ampoules containing radium emanation. All other methods including the surface application of radium or emanation and the insertion of metal needles containing radium salts or emanation into the lesion have been tried extensively by the writer and have been abandoned.

In our earliest experience with the present

method we used larger doses of radium emanation in the ampoules than we now employ. Halsey J. Baggs's⁴ experiments have shown the advisability of using weak ampoules. In ordinary cases of tongue cancer we insert in the lesion from 5 to 20 glass ampoules, each containing about $\frac{1}{2}$ millicurie of radium emanation. It is estimated that in about 5 days the ampoules will have decayed to zero. The ampoules are very minute, being about $\frac{3}{10}$ mm. in diameter and about 2 to 3 mm. long. They remain in the growth until in the ordinary course of the process they slough out or become harmlessly encysted in the tissue. As a rule only one treatment with the ampoules is necessary. Healing of the lesion occurs ordinarily in from 6 to 12 weeks but in some cases it may be delayed. Further details as to the technic of the method may be found in previous papers by the writer.⁵

Radium emanation is a gas—the first decay production of radium itself—and is obtained by means of a special pumping apparatus from a solution of radium chloride in water. The rays that are discharged from a tube containing radium emanation have the same effect as those from a tube containing radium itself. Radium emanation tubes, however, lose 16 per cent. of their power every 24 hours. Having to penetrate only the glass wall of the tube the soft beta rays from radium emanation tubes are effective in bombarding the cancer cells. Practical experience in the last 4 years has demonstrated the value of this particular method of using radium.

As to the permanency of the results, only the lapse of time can fully determine. A certain percentage of cases may be expected to relapse and cancer may reappear in the tongue or may develop in the cervical lymphatics.

Cancer of the cervical glands has a very serious prognosis although the progress of the disease may be delayed by radium treatment.

CASE REPORTS

Etiology. The ages of the 14 consecutive patients referred to in this report ranged from 25 to 69. There were 12 males and 2 females. One case had sclerosing glossitis due to syphilis. Tobacco was indulged in by 12 of the patients.

Clinical Features. In 12 cases there was deep ulceration of the tongue varying in size from a 5-cent piece to an elongated silver dollar.

2 patients presented a marked fungating

growth originating from an ulcerated base.

In one case the tongue was badly deformed by sclerosing glossitis.

The anterior part of the tongue was involved in 12 cases and the posterior part in 2 cases. The right border of the tongue was affected in 5 cases and the left border in 7 cases. The dorsum of the tongue was also affected in 3 cases and in one case the dorsum only was involved. In one case the entire tongue was affected.



Fig. 2. Patient in Fig. 1 showing complete healing of tongue after treatment. Patient had gained 9 pounds and appeared clinically well in May, 1923, when photograph was taken.

Diagnosis. The diagnosis was clinical in 7 cases and both clinical and microscopic in 7 cases.

In 7 cases the cervical glands were palpable when the patients were first seen and in 3 of these there was no doubt as to the carcinomatous nature of the glands.

In 2 cases the diagnosis was not made until a long course of antisypilitic treatment had been found ineffectual, the patients being subsequently referred for radium treatment.

Previous Treatment. In two cases the tongue

lesion had been operated on twice with recurrence in the tongue after both operations.

Two cases had had previous radium treatment with metal needles containing radium salts with recurrence in the tongue in both instances.

One case had been operated on and had then received surface applications of radium but later there was a recurrence in the tongue.

Treatment with glass ampoules containing radium emanation. The number of ampoules implanted in the tongue lesion ranged from 5 to 29. The ampoules contained a total of from 10 to 25 mc. of radium emanation.

In all cases radiations were given to the cervical glands with from 1,000 to 1,400 mc. of emanation. An average radiation of 18,000 millicurie hours was given over one area at a distance of 6 cm.

Results. Of the 14 consecutive cases included in the present report, 8 are clinically well for periods of from 1 month to nearly 2 years; 3 additional cases will probably recover, although the reaction from treatment is not completed, and 3 cases are fatally ill. These 3 cases, whose death is probably only a question of a short time, had extensive glandular involvement when first seen, and treatment was undertaken only as a palliative measure.

Five cases, which were clinically well and were shown January 17th, 1923, at a clinical meeting at the Presbyterian Hospital in Chicago, have remained free of the disease up to the present time, i. e., for periods of from 5 months to nearly 2 years. A detailed report of these cases has been made previously by the writer.⁵

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DISCUSSION

Dr. L. C. Taylor, Springfield: Suppose these ampoules sloughed out? Are they liable to be swallowed?

Dr. Simpson: We have never had any bad results from it. They are very small and very weak in power. I really believe it would not do much harm if they were swallowed, because they are so small. I don't think one would stay in position long enough in the stomach or intestines to cause any trouble. One or two or three will sometimes come out but the patient usually

catches them in his mouth and brings them back, but we have had no experience with trouble in swallowing them.

Dr. Frank Edward Simpson, Chicago (continuing): This is a little instrument that works on the plan of an ordinary syringe. This plunger goes into the apparatus and this is just an ordinary needle. These little ampoules are put in the needle and put into the tongue. I will pass around a little box of dead ampoules. Each one of these is put into the apparatus and then inserted into the border of the lesion.

Dr. A. A. Goldsmith, Chicago: Is there much pain in inserting the needle into the tongue?

Dr. Simpson: No. Local anesthesia is used and the tongue is anesthetized. Ordinarily the ampoules are inserted under local anesthesia so that there really is no pain to speak of.

Dr. J. F. Hultgen, Chicago: What about frequency between syphilis and carcinoma of the tongue? There is very often some glossitis preceding this. Are not most of the cases treated at first for syphilis?

Dr. Simpson: The question of carcinoma being grafted on syphilis. Is that what you mean?

Dr. Hultgen: Something like that.

Dr. Simpson: Of course that question comes up all the time. I think most of the cases of carcinoma of the tongue are due to tobacco and perhaps defective teeth; i. e., the constant irritation of defective teeth. I think the average case develops first a little patch of leucoplakia.

As far as carcinoma developing on syphilis, I think the scar of syphilis may form the starting point. You may then have a carcinoma developing on the scar. I don't believe that we see the two diseases actually together; i. e., I don't think we see syphilis and carcinoma forming the same lesion.

DIABETES INSIPIDUS AND PITUITARY ORGANOTHERAPY

F. Saint-Girons (*Revue Neurologique*, June, 1922).

The patient was a woman of thirty-one, congenitally syphilitic, who had right hemiplegia with aphasia seven years earlier, and for five years had experienced diabetes insipidus and marked obesity without any clinical or radiological sign of a pituitary tumor. Lumbar puncture had no effect. Pituitary extract was also ineffective orally, but hypodermically it reduced the polyuria immediately to a remarkable extent, but only transiently, and at the same time decreased the adiposity.

The authors regard this as an instance of true pituitary diabetes insipidus. They look on diabetes insipidus as of pituitary origin when accompanied by other pituitary symptoms, when unaffected by lumbar puncture, and when it reacts to organotherapy; as of nervous origin when there are symptoms of basilar meningitis, with modification of the cerebrospinal fluid, when pituitary medication is ineffectual, and when lumbar puncture affects the polyuria.—A. Gilbert, M. Villaret and F. Saint-Girons (*Revue Neurologique*, June, 1922).

ADVENTITIOUS SOUNDS

WALTER H. WATTERSON, M.D.

LA GRANGE, ILL.

WITHOUT PULMONARY PATHOLOGY

	Produced By	Differentiated By
Technical Errors	Scope defects, moving bell over skin. Friction to any part of scope during examination.	Be alert for all extraneous causes of sounds.
Maliciously Produced Sounds	Swallowing, Asthmatic, Produced: (Sulphur and other irritant gases). Alcoholism.	Be a detective. Suspect the over-anxious and smarty.
At Apex: Muscle Sounds	Trapezius, Pectoral and Neck muscles.	Move muscles while holding breath and ausculting.
Joint Sounds	Scapula, Costo-sternal, claviculo-sternal, shoulder, sternal.	Move joints while holding breath and ausculting.
Skin Sounds	Dry skin, rough skin, hairy skin.	Oil, soap or moistened skin. Use nipple tip on bell of scope.
Nose and Throat Sounds	Nasal obstruction, falling back of tongue, swallowing.	Mouth breathing. Watch for other acts.
Atelectatic	Atelectasis present and demonstrable in 60% of chests.	Disappear after deep breaths or cough.
At Base: Marginal	Separation of pleuræ at base and lingula.	Disappear after deep breathing. No other signs.

PATHOLOGICAL

Friction	Rubbing or stretching of inflamed or adhering pleuræ.	Sound a leathery rub or creak. Heard on Inspiration and Expiration Not affected by cough.
Parenchymal Rales: Fine	Produced in alveoli by acute inflammatory process; also in Atelectasis in healed lesion.	Sound like rubbing hair near ear. Constant and localized in acute process, otherwise inconstant. Present in pneumonia and pneumonic tuberculosis.
Medium	Produced in bronchioles by established inflammatory change as chronic pulmonary Tuberculosis.	Sound like cigarette rolled near ear; is constant and localized when above 3rd rib and 5th D. S.; is usually due to tuberculosis.
Large or Coarse	Produced in bronchi by accumulation of moisture. Same mechanism in Early Cavity.	Sound like cigar rolled near ear. Is not constant, is localized. Is found in Oedema, bronchitis and beginning cavity.
Bubbling or Gurgling	Produced in cavity or much moisture in large bronchi connecting with trachea.	Name indicates quality of sound. Is not constant, is localized. Found in cavity, some forms of bronchitis and in bronchiectasis.
Sibilent and Sonorous	Obstruction or diminution in the caliber of the bronchi with limited moisture.	Named from quality of sound. Not constant, not localized. Found in bronchitis, asthma and emphysema.

MEDICAL MEN WHO HAVE ATTAINED FAME IN OTHER FIELDS OF ENDEAVOR

W. MOORE THOMPSON, A. B., M. D.

CHICAGO

(Continued from page 52)

David Macbeth Moir, who faithfully performed the arduous duties of a medical practitioner in Edinburgh and whose life was almost wholly devoted to the service of his fellows, was the famous "Delta" of *Blackwood's Magazine*. His poems, some four hundred of which he contributed to "Maga." alone, are out of fashion now, though "their delightful vein of reflectiveness and their charm of expression" should preserve them from absolute neglect. They fill two large volumes; his prose works are by no means meagre or unimportant; and his "Sketches of the Poetical Literature of the past Half-Century" is a standard work on the poetry of his period. Medical treatises also came from his pen; and his "Life of Mansie Wauch, Tailor," is one of the most agreeable of genuine Scotch sketches. A quiet humor and simple pathos, a love of humanity, deep reverential feeling, and originality of thought—all these are found in "Delta's" writings, and serve, with his own admirable nature, to keep his memory green.

The wooing of the muse by medical men has not become obsolete in our own day. Let me but mention Thomas Gordon Hake, an English poet of note of the early part of the nineteenth century; Dr. Drummond, unofficially crowned the poet laureate of Canada; Edward Willard Watson of Philadelphia, a graduate of the University of Pennsylvania, who, notwithstanding his activity among his many patients, has produced four volumes of exquisitely written poetry; Dr. James B. Naylor, a graduate of Starling Medical College, of Columbus, Ohio, a practicing physician in his little home town of Malta, Ohio, and one of President Harding's most intimate friends, who is one of the best known campaign song writers in this country; he is the author of that much played song, "A Hot Time in the Old Town," and also of "Casey Jones." His friendship with the President was born in adversity—each running for a state office and both losing; and Dr. Charles Alexander Eastman, a well-known Boston physician and an almost full-blooded Sioux Indian, who has given us several

volumes of beautiful poetry, and a quantity of priceless information of the life and customs of his people among whom he lived until early young manhood, learning all the arts of the Indian warrior.

Most readers of poetry are acquainted with the somewhat unusual but impressive and, at times, exquisite verse of Robert Seymour Bridges, the poet laureate of England. For twenty-five years he practiced medicine successfully, only dabbling in verse in his leisure moments; and today he still specializes in the treatment of children's diseases, though to a limited degree.

Some Medical Humorists. Paraphrasing, we may truthfully say:

"A bit of humor, now and then,
Is relished by the best of men."

In medicine humor is a virtue, nor is a sense of humor incompatible with dignity. It is not strange that physicians should see much humor in their work, for no men see life more intimately than do they. Unfortunately, too few have recorded, humorously the things they have seen although in the great literature of humor no small number of medical names appear. Thus, it does not sound familiar to speak of "Dr." Cervantes; yet the creator of the immortal Don Quixote, bent upon the alleviation of all the ills of mankind, was a doctor in very truth; as was also Francois Rabelais, one of the earliest of reformers, who was not only a priest, but a graduate of the faculty of medicine at Montpellier as well, and whose "Gargantua" and "Pantagruel" hold an enviable standing in literature. Rabelais made a notable attempt to reform the methods of education then in vogue, and was also deeply interested in the study of the work of the Greek physicians. He raised the gift of story-telling to a height few great writers have ever attained.

Tobias Smollett and Oliver Goldsmith, the latter as typically Irish as Smollett was Scotch, are two of the medical humorists whose works and personalities are frequently compared. Smollett studied medicine at Glasgow University, and at the age of eighteen left for London with the manuscript of a play in his pocket and "nothing else to fall back upon except his brains and his sturdy Scotch independence." He failed to find a purchaser for his play, and in desperation embarked as surgeon's mate on a line-of-battle ship

and served in the Carthage expedition of 1741. Failure pursued him until 1745, when he published "Roderick Random," which was at once a success. This was followed by "Peregrine Pickle," "Adventures of Ferdinand, Count Fathom," a version of Don Quixote, and other books. In 1750, he took the degree in medicine at Aberdeen, which profession he practiced until his death at Leghorn in his fifty-first year. His most delightful work, "The Adventures of Humphrey Clinker," was published posthumously. Smollett, though lagging far behind Goldsmith, was assuredly the second, so far as literary genius is concerned, of the English speaking medical men who wrote. In his checkered career he was reviewer, historian, critic, medical writer, poet, and pamphleteer. He was assigned by Sir Walter Scott and his contemporaries a very high rank in literature. Surely he has amused more people with his books than he could have helped with any number of prescriptions. He was more of a physician than Goldsmith, and could undoubtedly have excelled in that profession had he so desired. Fortunately for the world at large he did that for which his genius was best adapted.

Smollett was an eminently handsome man; Goldsmith was short, stumpy, with a somewhat absurd face, and immoderately fond of decking himself in gorgeous raiment. But as Smollett excelled Goldsmith in appearance, so Goldsmith far surpassed him in genius. From the very first his ability was recognized by a few of the most renowned men of letters and arts in London. "Dr. Johnson, Sir Joshua Reynolds, Garrick and Burke were proud to call Goldsmith friend, and he was, perhaps, the most beloved member of that brilliant coterie of choice spirits, who assembled weekly under the leadership of Johnson." The "Vicar of Wakefield" and "She Stoops to Conquer"—the latter one of the few really great plays written by a Briton—will live as long as the English language is read.

Goldsmith attempted to practice as a physician more than once, but with little success. He is without doubt the greatest purely literary genius that Ireland has ever produced; and with Smollett he shares the distinction of being one of the two medical men of the English speaking people who may be said to have possessed true genius. It would have mattered little to what profession Goldsmith belonged. He chanced to be a doc-

tor, but "from head to foot he was the shiftless literary man, too irresponsible to be bound down by any business ties." Nevertheless, the medical profession may take pride to itself that the immortal Oliver even called himself a doctor.

Those of us who have reveled in the adventures of the rollicking, lovable Charles O'Malley in the Napoleonic campaigns probably did not recall—or, it may be, did not know—that his creator was a doctor. Charles Lever was an Irishman, typical in many respects, and on the whole, the greatest writer of fiction who has come from the Emerald Isle. Although a curious degree of obscurity shrouds his early life, he is said to have visited America and to have lived here for some little time. He practiced medicine for several years in Brussels, and, while there, owing to his opportunities for coming into contact with army officers of different nationalities, collected the material for his military novels. He completed "Harry Lorrequer," which set the seal to his fame, in Brussels. As a portrayer of certain types of Irish character he is unsurpassed. "His pen pictures are graphic and life-like, and limned by a master hand." Priests, peasants, horse-dealers, farmers, squires, soldiers, and attorneys pass before us in the pages of "Charles O'Malley" and his other novels, and their foibles, idiosyncrasies, and humor are depicted so vividly that we can almost see and hear them. Lever's books are full to overflowing with wit, humor and drollery and he is easily *facile princeps* of the Irish writers of fiction.

To this group of medical writers belongs our own immortal and well-loved Holmes, famous alike as a scientist, and as a writer. Of the American medical men who have excelled in literature Oliver Wendell Holmes stands easily first and foremost. "In some respects he holds a position quite in the front rank of writers and although not a genius like Goldsmith, nor so prolific nor, perhaps, so gifted as Smollett, he is in his own particular line inimitable." He is to be classed among the four chief poets whom America has produced, notwithstanding that he was a hard-working physician and the author of valuable treatises on medical art; and he was one of the most versatile of the litterateurs of the century. He went to the Paris medical schools shortly after graduating from Harvard; practiced as a physician in Boston; and for nearly forty

years was Professor of Physiology. "Yet he had time to write the most delightful and original of philosophical essays, to publish novels of which at least one—'Elsie Venner: A Romance of Destiny'—will rank as a classic, to deliver orations and after-dinner speeches in sparkling verse, and to write exquisite poems in rich and felicitous language on a wonderful variety of themes." He was a master of style, and all his work is illuminated with numerous flashes of wit. A shining light in his profession, his monograph on puerperal fever as a private pestilence will serve to keep his memory green as a physician long after men more famed as practicing physicians have died and been forgotten. But after all, his medical gifts and writings are overshadowed by his literary fame. The "Autocrat of the Breakfast Table" is *sui generis* and "abounds with quaint whimsical fun, humor and good-natured wit, garnished throughout with sound common sense, while his language is easy, flowing, sparkling and radiating." Holmes was a prominent member of that remarkable band of New England writers which included among others, Longfellow and Emerson.

This group of medical humorists has been aptly characterized as the "laughing philosophers," full of quaint quips and witticisms at the faults and foibles of their times and the failings of human nature.

Medical Essayists and Philosophers. In the higher realms of literature and ratiocination we do not find that medical men have been remiss. Were it worth while to go back to antiquity and to the history of foreign nations for examples of this kind we would instinctively think of Luke, the Apostle, the "Beloved physician" of scripture. After Harnack's thorough study of Luke, there is no doubt that the writer of the third gospel was a physician. He was a Greek slave at the time of his conversion to Christianity. It is very probable that he was educated at Alexandria, which center attracted students from all over the world. It continued to be the home of good medical teaching and, above all, of observation rather than theory in medicine, for some five or six centuries. Luke was a highly educated man, and not only a physician, but a musician, painter and poet as well. His narrative is replete with medical words, and it was his custom to take the stories of the other gospel writers and change their ordinary popular expressions into medical

terms which described exactly what had happened according to the understanding of the physicians of that time. His gospel is pronounced by Renan "the most beautiful book ever written." It is the only gospel written for the Gentiles, of whom the author was one, and records more of Christ's miracles than any other.

Then, in this group of thinkers, Averrhoës, a master of the twelfth century, most famous of Arabian philosophers, and physician to the caliph, would occupy a prominent position. His works include treatises on jurisprudence, grammar, astronomy, medicine and philosophy—a wide field of mental activity. Nor should we forget, among these older writers, Bernard de Mandeville, the son of a physician and himself a physician, philosopher and satirist, who wrote the well-known "Fable of the Bees;" nor his namesake, Sir John Mandeville, credited with that singular book of "Travels," which, in truth, was composed in large part by a Liège physician, John de Bourgogne. Likewise, here must be mentioned the chief of literary doctors, Sir Thomas Browne, a graduate of Oxford in 1629, whose famous "Religio Medici" and "Urn Burial" show his wonderful charm of style.

More recently we encounter Sainte-Beuve, who studied medicine but did not practice, although in his youth he had intended to do so; John Arbuthnot, of the seventeenth century, the close friend of Jonathan Swift and Alexander Pope, and one of that group of satirists who formed the "Scriblerus Club;" he was, it is believed, the originator of the epithet "John Bull" as applied to the English national character; John Abercrombie, the chief consulting physician in Scotland during the last century, who achieved literary fame with two volumes, "The Intellectual Powers" and "The Moral Feelings," which enjoyed a popularity scarcely commensurate with their actual merits; Thomas Beddoes, an English physician, essayist and scientific writer of note, and a sympathizer with the French Revolution, who received his medical degree from Oxford in 1786; and, last but by no means least, the famous John Locke, the philosopher, whose "Essay on the Human Understanding" is known to all, and whose medical knowledge is borne witness to by Sydenham, the celebrated doctor of his day. Locke, it seems, was turned off from medicine by a woman patient who grew tired of him and called in another physician. This, as

Holmes suggests, "helped, perhaps, to spoil a promising doctor and make an immortal metaphysician." At any rate, Locke laid down the professional wig and cane of the period and took to other studies.

In our own time we must note, in this connection, Dr. Richard Clarke Cabot, of Boston, a graduate of Harvard University, who is the author of a beautiful spiritual essay, "What Men Live By;" John Alexander Donovan, of Butte, Montana, a graduate of the University of Michigan and a well-known woodsman and philosopher, who has written a charming and entirely practical book on camping out; William Fullerton Cumming, a son of Burns' "Bonnie Leslie," who, compelled to travel in a mild climate for his health, wrote "The Notes of a Wanderer," a work abounding in poetic description of the beautiful scenery of the East; and the late Dr. Carlos Montezuma, of Chicago, once Editor of the *Indian Magazine*, and himself an Apache Indian, who wrote numberless books on the life and legends of the Indians, which are valuable additions to history as well as charming pieces of literature. The folklore and legends of the American Indian, with all their fanciful beauty, would probably have been lost to us were it not for his labors.

Medical Writers of Fiction. Practical and prosaic as many erroneously believe the average physician to be, the element of imagination and the love of romance are frequently rampant in his makeup. Hence it is we find some of the greatest and most stirring romances of literature have originated in the fertile minds of medical men. Those world-famous books, "The Wandering Jew" and "The Mysteries of Paris," were the works of Eugene Sue, a son of a distinguished surgeon in Napoleon's army and himself a French naval surgeon in 1823-28. Dr. John Brown, that most diffident, kind-souled and delightful of Scottish authors who gave us the memorable "Rab and his Friends," practiced medicine in Edinburgh. His sketches of brutes, whom he almost humanized, will probably outlive his more ambitious "Horæ Subsecivæ" and "John Leech and other Papers." Someone has said that "if his ministrations to his clansmen in the Scottish Highlands were as welcome and soothing as his stories, he must indeed have been a wonderful physician." He has had a close follower in Dr. Charles Bert Reed, of Chicago, brother of Myrtle

Reed, the novelist, and himself a writer of exceptional ability in both fiction and history, whose "Duke," the story of a dog, reveals a remarkable human understanding of animalkind.

Who has not read with wonder and delight that charming novel "Lorna Doone?" Richard Doddridge Blackmore studied medicine as well as law seriously in his youth, and the unexpected use to which he turned his knowledge of medicine in several of his books, notably in the last "Perlycross," has excited much interest and attention in the profession. A contemporary physician writes: "The medical incidents in 'Perlycross' are portrayed with an accuracy which shows an intimate knowledge of the profession and its members."

Of a very different mould from his contemporary, Dr. John Brown, was Samuel Warren, physician, lawyer, politician, novelist, and an office-seeker, and author of the well-known "Ten Thousand a Year." "Tittlebat Titmouse" is not much studied now, for his type is out-of-date, and the society of which the novel treats, the abuses prevalent, the general corruption which prevailed in public life were exposures intended for a past generation. Yet there are passages in the book which should save it from absolute neglect, and it has for three-quarters of a century kept its author's name alive. This is more than his "Passages from the Diary of a late Physician" could have done, or those dozen other works with the bare titles of which the present reading public is scarcely acquainted. Of still another mould is the famous American author, Josiah Gilbert Holland, the "Timothy Titcomb" of literature, who was graduated in 1843 from the Berkshire Medical College, and became the founder and editor of *Scribner's* (later, the *Century*) Magazine. He was noted alike as poet, historian and novelist. His poem "Bitter-Sweet" has been a general favorite.

When we come to the medical novelists of to-day there are two names which stand out preëminently, Doyle and Mitchell. Silas Weir Mitchell, a novelist of distinction, an historian and a poet, was, moreover, a scientist of rare attainment, and in his special branch of practice he was supreme. As the medical man he was greater than the artist. Writes one: "Mitchell's vocation and special bent, was neurology, and his avocation and distraction, literature." He was an instance of superlative talent appearing in

a family in which high ability had been noted. His father was a great physician and a poet. Like Darwin, Mitchell was almost a chronic invalid throughout his life, and like that great scientist he lived to a ripe old age. There are thousands who knew nothing or but little, of Dr. Mitchell's neurology, but who does not sincerely admire his pen-pictures of the "city of brotherly love," his native place, as portrayed in "Hugh Wynne" and "The Red City," and his admirable literary ability as depicted in "The Adventures of François," "Circumstance," and "Dr. North and His Friends!"

Sir Arthur Conan Doyle, on the contrary, exemplifies the fact that the medical hand can scarcely be concealed when it takes to the pen. His novels and stories abound in allusions which only his study, training, and experience as a doctor could suggest. Filson Young calls him "a teller of stories, and the stories he tells are stories of the adventures of more or less simple men in contact with danger or difficulty." He wrote his first book when he was but six years old and illustrated it himself. He inherited the artistic gift not only from his grandfather, John Doyle, the famous political caricaturist, but also from his father, whose gifts as an artist, although quite unknown to the public at large, are of a much higher order than either those of John Doyle or even of his brother Richard, the famous contributor to *Punch* in early days. Conan Doyle's Sherlock Holmes stories, delightful and fascinating as they are, are not his best work, though they are the most popular. It was Sherlock Holmes who rescued him from his early humdrum career as a medical practitioner in an English country town. Holmes made his bow to the public in 1887 in "A Study in Scarlet," and this was followed by other famous detective stories. Doyle's best work, however, is to be found in his "Micah Clarke," "Sir Nigel" and "The White Company." He has also written two books of poetry and certain works of literary criticism. Incidentally, he has earned to date over \$400,000, which is at least two hundred times more than Dr. John Keats earned from his written poems or Dr. Goldsmith from his novels and comedies, and perhaps one hundred times more than was made by Dr. Oliver Wendell Holmes from his writings.

(To be Continued)

Society Proceedings

CHRISTIAN COUNTY

The Christian County Medical Society met July 19, 1923, at the grounds of the Taylorville Country Club, where those who enjoy the exercise could—and did—enjoy golf to their full limit, while others whiled away the time in social chat and looked on.

At 7 o'clock we sat down to a fine dinner, and after the repast Dr. Wm. Englebach of St. Louis addressed the meeting on the "Effects of the Internal Secretions on the Growth of the Human Body." This was a masterly address and all enjoyed it greatly.

Dr. Nauss of Springfield was also present and spoke on the advisability of coordinating the work in public health so that we might get greater good for the money spent in that direction.

More than half of our membership was present and all enjoyed the meeting fully.

Truly,

D. D. Barr, Sec.-Treas.

EFFINGHAM COUNTY

Illinois Medical Journal,
Oak Park, Illinois.

Sirs:—The Effingham County Medical Society met in regular session at St. Anthony's Hospital.

Dr. J. C. R. Wettstein read an interesting paper on "Kidney and Ureteral Stone, Symptoms, Diagnosis and Treatment."

W. E. Lawrence, Roentgenologist, gave a lecture on "Recent X-Ray Innovations," demonstrating the use of X-Ray accessories.

The following resolution was adopted by the Effingham County Medical Society, July 10, 1923:

RESOLUTION

WHEREAS, The medical profession merits all possible favorable legislation, and

WHEREAS, The Medical Practice Act. Senate Bill No. 439, was an Act favorable to the medical profession, and

WHEREAS, The Medical Practice Act became a law upon its being signed by Governor Small. Therefore, be it

Resolved, that in affixing his signature to the Medical Practice Act Governor Small rendered to the physicians of the State of Illinois a service which entitles him to a lasting debt of gratitude, and be it

Resolved, that the Effingham County Medical Society, in meeting assembled, extend to Governor Small their thanks for his support of Senate Bill No. 439 and their appreciation of his attitude toward the medical profession, and be it further

Resolved, that a copy of these resolutions be sent to Governor Small, a copy sent to the ILLINOIS MEDICAL JOURNAL and a copy spread upon the minutes of the Effingham County Medical Society.

C. H. Diehl, Secretary.

GREENE COUNTY

The Greene County Medical Society met at the City Hall in Greenfield, Friday, June 8, 1923, and was called to order by the President, Dr. J. A. Cravens, at 11:30 a. m. The minutes of the last meeting were read and approved. The order of business was transacted before adjournment for dinner, which was had at 12:30 until 2 p. m.

The Society was again called to order by the President promptly at 2 p. m. on the lawn at the City Hall. There being no prepared program for the want of time, the President opened the meeting for general remarks and discussion and called upon Dr. Carl E. Black, Jacksonville. Speaking of the proposed new Medical Practice Act, before the legislature, he thought such a law essential for the protection of the public, and for the good of the community health. He believed in organization when the doctors could understand each better and thereby provide for more efficient service to the public, which would mean better health. He spoke of the good work that had been accomplished by the Jacksonville Clinical Association. Dr. Howard Burns, Carrollton, made an interesting talk on the proper care of the feet, which was full of thought. He spoke of the splendid opportunity for training which Camp Custer offers. An invitation of the government to attend without expense to themselves or parents. The effort is made in the belief that attendance at this training camp will make better citizens. He advised that all young men between 16 and 20 years should take advantage of this and to apply at once for admission to the County Chairman.

Dr. F. A. Norris, Jacksonville, made an interesting talk, on Surgical Pathology, which was well received. Dr. C. E. Cole, Jacksonville, made an interesting talk, a partial description of his trip and visit to some of the leading hospitals of the States, under the auspices of the Tri-State Medical Society as a delegate.

Dr. T. G. McLin, Jacksonville, offered greetings to the Greene County Medical Society from the Jacksonville Clinical Society, of which he is the Secretary, and extended a cordial invitation to attend their meetings.

The discussions was taken part in by most of the physicians present, and mention Drs. F. H. Russell, E. J. Peck and F. N. McLaren.

On motion a rising vote of thanks was given to the Jacksonville doctors and to Drs. Cravens and Bulger for their hospitable entertainment.

The Censors reported on White Hall for the next meeting in September.

On motion, adjourned.

W. Knox, Secretary.

MADISON COUNTY

HOME AGAIN

Dr. and Mrs. E. W. Fiegenbaum desire to announce that after a six months vacation, taking a cruise around the World, they have returned in good health and are again at home in good Old Madison.

During our absence we sailed about 30,000 miles,

over every ocean on the map, except the Arctic and Antarctic oceans and also covered approximately 4,000 miles by rail. We visited in nineteen countries and came in contact with the peoples of all corners of the earth. In some of these countries we were met with climates so cold that we were compelled to wear our heaviest clothing and buy more. On the other hand we encountered tropical conditions that made clothing entirely superfluous and we often wished that the clothes worn by Adam and Eve were fashionable at this time. When we sailed across the equator, the sun directly overhead and the heavens above like brass, we often wondered if we would ever be cool and comfortable again.

We mingled with the little yellow people of Japan and China and had an interesting visit in the islands of Java and Ceylon. We watched with growing interest the seething, writhing mass of humanity in India, with its ignorance and superstition. We revelled in the ancient history of far away Egypt and spent some time in wandering about that country amid the scenes and actions of 3,000 to 5,000 years before the Christian era.

Finally we made a flying visit across Europe, only touching the high places and had a fleeting view of the inhabitants of the Continent. During the whole trip we preserved good health and enjoyed every minute.

But we are home again and home looks mighty good to us. We are again among friends and feel that although it was a great privilege to see all that we have seen, we are more than willing to say, "There is no place like home."

THE RETURN OF THE GLOBE TROTTERS

We are glad to announce the safe return from their "Cruise around the World," of Dr. and Mrs. W. H. C. Smith and son, Theodore, of Godfrey.

They made exactly the same trip that we did, and were in our immediate company all the way through. They enjoyed good health throughout the journey and all of them were ready for each day's program, although at times the task was exceedingly strenuous.

Dr. Smith for the last 20 years has been an extensive traveler, covering not only the whole of the United States, but also extending through Central America down to the Panama Canal and his experience stood us in good stead on our voyage and we were able to profit by it on more than one occasion.

It is also noteworthy that Dr. and Mrs. Smith found friends and old acquaintances in many ports of the Far East and the family were privileged to enjoy the hospitality of friends in Kobe, Japan; Buitenzorg, Java; Colombo, Ceylon; Calcutta, India, and other places.

We are glad that they are once more with us and our society will profit by what Dr. Smith will be able to tell us of conditions on the other side of the world.

THE MEDICAL MIND OF TODAY

Forty doctors, from all parts of the United States were fellow passengers with us on the world's cruise.

We had ample time and opportunity to interview these men regarding the present condition of the practice of medicine and the outlook for the immediate future, as regards the economic situation. We invariably found that these men regarded the situation as extremely critical.

They expressed the opinion that restraining laws were being passed by the Congress and by state legislatures, which seriously affected our economic condition and handicaps us in the practice of our profession. The freedom granted us by our diplomas is being abridged from day to day, and the time will soon come when we will be compelled to practice our art according to rules laid down by some layman in a legislative body.

By the Harrison Act we are now compelled to record any dose of opiate issued, the name and address of the patient and the date of administration. The time is rapidly approaching when the law will compel us to register any dose of medicine prescribed for every patient, thus laying bare the most sacred relation between physician and patient and making a record, for the public to read, of our every act and deed.

This is not an overdrawn picture, but merely shows what paternalism leads to. When the government steps in and tells us what we must do and what we must not do, then the condition as outlined above will become an established fact.

This is the consensus of opinion of the men with whom we associated for five months. They were not young men, but men who have borne the burden of the practice for from twenty-five to forty years; men who are thoroughly acquainted with the present condition and who could foresee the future, by the events of the past, that have touched their lives.—E. W. Fiegenbaum in *The Madison County Doctor*.

Marriages

NATHAN S. DAVIS, III, to Miss Cordelia Carpenter, both of Chicago, July 6.

HARRY JOSEPH DWYER, Chicago, to Miss Madeleine Marie Lyon of Oak Park, Ill., June 20.

MARK SNOWDEN NELSON, Canton, Ill., to Miss Frances Amrine of Rushville, June 28, at Chicago.

ALEXANDER P. ROBERTSON, Alton, Ill., to Miss Elizabeth Crump of East St. Louis, June 6.

Personals

Dr. R. R. Ferguson, secretary of the Chicago Medical Society, is reported to have taken up aviation, secured a pilot's license, and is making frequent trips via the air route to Iowa, Wisconsin and other states.

Dr. Jesse R. Gerstley of Chicago has gone

abroad to visit the Children's Clinics of Europe.

Dr. J. P. Johnstone has been appointed city physician of East Moline, succeeding Dr. H. J. Love who was drowned recently.

News Notes

—The physicians of Gibson City will close their offices on Thursday afternoons during July, August and September. The vacation schedule is so arranged, however, that not all physicians will be out of the city at the same time.

—Dr. Alfred Stocker, Rock Island, was held to the grand jury, July 2, it is reported, charged with violation of the Harrison Narcotic Law. In default of the \$3,000 bond fixed by the federal commissioner, Dr. Stocker was committed to jail.

—An outpatient department for diabetes and nephritis has been instituted at S. Bernard's Hospital, with Dr. H. Leonard Bolen in charge. Arrangements have been made for beds for charity cases for treatment of diabetic conditions with insulin.

—As the first step in the physical examination campaign initiated by the National Health Council, the state department of public health has arranged to give a complete examination to all its employees, more than 90 per cent, of whom welcomed the opportunity offered.

—Arrangements have been made by the director of public welfare to have motion pictures taken at the various state hospitals, to be shown at the state fair and similar gatherings. The purpose of the state hospital cinematograph is to give the public a clearer understanding of conditions and problems in the institutions.

—A Scott, alias "Dr." A. Scott, Peoria, a negro, was placed in the county jail, recently, it is reported, on complaint of a patient for whom he prescribed without having a license to practice medicine. "Doctor" Scott, the report states, has been tried and convicted on the same charge on previous occasions.

—Ogle and Lee County Medical societies were hosts at an open-air medical meeting and picnic, Lowell Park, Dixon, July 26, to the societies of Stephenson, Winnebago, DeKalb and Whiteside counties. Dr. Edward H. Ochsner, Chicago, president of the Illinois State Medical Society, delivered an address on "Some Problems in Medical Economics."

—Eighteen grocers of Joliet were fined \$20

each and costs for violating the state law which prohibits the sale of drugs except by a pharmacist. It has been the custom, it is reported, for grocers to sell iodine, glycerin, castor oil and other well known family remedies, and they were assured by the wholesalers that this was not in violation of the law.

—As a test of the new medical practice act which became effective, July 1, the state department of education and registration had arraigned three chiropractors before the justice of peace of Springfield charged with practicing medicine without a license. The department announced that these are the first arrests in a campaign for the rigid enforcement of the new regulations.

—The state department of public health has agreed to furnish faculty members for a course in public health and hygiene at the summer school for pastors, which opens, July 31, at Northwestern University, Evanston. A total of eleven lectures will be given by members of the department staff, most of which will be illustrated.

—Twenty-one district health officers of the state were dismissed, June 30, by Dr. Isaac D. Rawlings, director of the department of health, it is reported, on account of a reduction in the appropriation for these officers from \$80,000 to \$30,000. Seven of the twenty-one, it is said, will be reemployed.

—Through the generosity of the Champaign County Tuberculosis League, a preventorium for underweight and malnourished children will be conducted at the Outlook Sanatorium, Urbana, during the school vacation period this summer. The children will be given a three-weeks' rest under medical supervision. About fifteen children will be accommodated every three weeks.

—The new \$150,000 Philadelphia Memorial Hospital, Mooseheart, known as the "City of Childhood," has been completed. The building was donated to Mooseheart by the Philadelphia lodge of the Order of Moose, and is one of the 147 buildings on the Mooseheart estate, which represents an expenditure of \$6,500,000 in buildings.

—The state director of public health announces that plans have been completed for the Eighth Annual State Fair Better Babies Conference, to be held in Springfield, September 15. Applications for entry will be received between July 23 and September 7, all children in the

state between 6 and 60 months being eligible for examination. No registration fee or other charge will be made. Complete mental and physical examinations will be given, and each child will be rated on the basis of a standard score card. The maximum capacity of the conference will probably be from 500 to 600.

—The placement bureau of the Chicago Tuberculosis Institute has, since the beginning of 1923, filled fifty-two positions and registered 161 applicants. In the seven years of its existence, the bureau has made a total of 787 placements in thirty-one states, 48.2 per cent. of which were in Illinois, and 11.2 per cent. in Indiana. Since Mrs. Theodore Sachs, who started the bureau, has become superintendent of the Tuberculosis Institute, the placement bureau is in charge of Miss Annie J. Morrison. No charge is made for assistance in finding suitable positions for tuberculous applicants, and correspondence with nurses and organizations which it aims to serve is solicited.

—The following have accepted positions as consulting physicians at the reorganized St. Elizabeth Hospital: Dr. William A. Pusey, syphilology and dermatology; Dr. Frederick Tice, diseases of the lungs; Dr. Joseph M. Patton, diseases of the heart and circulatory system; Dr. Julius H. Hess, diseases of infancy and childhood; Dr. John Favill, diseases of the nervous system; Dr. Hugh McGuigan, clinical biochemistry. Dr. Frederick L. Pickoff has been appointed full-time pathologist and supervisor of laboratory diagnosis and investigation. Dr. Francis E. Senear has been appointed attending physician in dermatology. Dr. Richard B. Oleson, attending physician in tuberculosis and cardiology, and Dr. Albert E. Luckhardt, attending physician in neuropsychiatry.

—Adams County Medical Society appointed a committee, Drs. T. B. Knox, J. H. Koch and A. H. Bitter, to be a medical milk commission, a branch of the American Association of Medical Milk Commissions.

—Lake County Medical Society members with wives and nurses held a picnic at Wauconda, July 19.

—Drs. S. M. Miller, E. E. Barbour, J. M. Furstman and A. J. Kane and Attorney F. J. Quinn were appointed a committee of the Peoria City Medical Society to form a medical milk commission.

Deaths

ISAAC LOUIS BEATTY, Fairview Ill., Eclectic Medical Institute, Cincinnati, 1881; aged 67; died, July 2, of pernicious anemia.

VITO BENEVENTI, Chicago; University of Naples, Italy, 1896; aged 58; died, June 25.

WILLIAM T. BRIDGES, Stonington, Ill.; Missouri Medical College, St. Louis, 1888; member of the Illinois State Medical Society; aged 64; died, July 4, following a long illness.

T. N. BURWASH, Champaign, Ill.; Missouri Medical College, St. Louis, 1878; aged 78; was found dead, June 29, of accidental asphyxiation.

EUGENE HOLT EASTMAN, Chicago; Hahnemann Medical College and Hospital, Chicago, 1903; aged 52; died, June 4, at the Washington Boulevard Hospital, of carcinoma of the liver.

ELMER CLAYTON FILE, Rochelle, Ill.; Hahnemann Medical College and Hospital, Chicago, 1896; member of the Illinois State Medical Society; aged 51; died suddenly, July 8, of cerebral hemorrhage.

EDWARD A. FISCHKIN, Chicago; University of Berlin, Germany, 1894; a Fellow A. M. A.; member of the Chicago Dermatological Society; formerly professor of dermatology and syphilology at the Bennett Medical College and the Chicago College of Medicine and surgery; on the staffs of the Mount Sinai, St. Elizabeth's and the Norwegian Lutheran Deaconess hospitals; aged 60; died, July 13, of pernicious anemia.

WILBUR MAYNARD FRENCH, Chicago; College of Physicians and Surgeons, Chicago, 1902; a Fellow A. M. A.; formerly instructor of clinical pediatrics at his alma mater and the Illinois Post-Graduate Medical School; on the staff of the University Hospital; aged 47; died, June 22, of strangulated hernia.

ROBERT C. HAMILTON, Chicago; Physio-Medical Institute, Cincinnati, 1882; aged 76; died June 16, at Kansas City, Mo., following a prostatectomy.

WILLIAM P. HENRICH, East St. Louis, Ill.; Marion-Sims College of Medicine, St. Louis, 1895; aged 53; died, July 4, of diabetes.

CHARLES ALBERT HIGINBOTHAM, Vandalia, Ill.; Eclectic Medical Institute, Cincinnati, 1883; aged 60; died, June 6, of pyelonephritis.

THOMAS LAWTON, Hinsdale, Ill.; Chicago (Ill.) Homeopathic Medical College, 1890; aged 61; died, July 10.

HENRY JAY LOVE, East Moline, Ill.; University of Michigan Medical School, Ann Arbor, 1907; a Fellow A. M. A.; city physician; at one time secretary of the Rock Island County Medical Society; formerly of the staffs of the Atchison, Topeka and Santa Fe Railway hospitals, Fort Madison, Iowa, and Topeka, Kan.; served in the M. C., U. S. Army, during the World War, with the rank of captain; aged 42; was drowned, June 18.

ANDREW MAURO, Chicago; (licensed, Illinois, 1877); aged 82; died, July 8, at the West Side Hospital, of acute dilatation of the heart, following a prostatectomy.

JOHN WILLIAM MCGUIRE, Chicago; Baltimore (Md.) Medical College, 1894; member of the Illinois State

Medical Society; served in the M. C., U. S. Army, during the World War; aged 54; died, June 21, at the Englewood Hospital, of chronic myocarditis and chronic interstitial nephritis.

DANIEL THURBER NELSON, Chicago; Medical School of Harvard University, Boston, 1865; a Fellow A. M. A.; professor of physiology and histology, Chicago Medical College, 1866-1879; professor of clinical gynecology, Rush Medical College, 1880-1898; member of the Royal Society of Medicine, London; Civil War veteran; aged 85; died, July 19, of bronchopneumonia.

CHARLES MONTAGUE NOBLE, Peoria, Ill.; College of Physicians and Surgeons, Chicago, 1901; aged 49; died, June 23, at the Proctor Hospital, of heart disease.

EDGAR MEAD READING, Chicago; Bennett Medical College, Chicago, 1877; a Fellow A. M. A.; formerly emeritus professor of neurology, Loyola University School of Medicine; aged 70; died, June 27, at Berrien Springs, Mich., of uremia and dilatation of the heart.

HORACE MANN STARKEY, Rockford, Ill.; Chicago Medical College, 1878; a Fellow A. M. A.; member of the American Academy of Ophthalmology and the Chicago Ophthalmological Society; formerly professor of clinical ophthalmology and otology, Northwestern University Medical School, Chicago; at one time on the staff of the Cook County Hospital, Chicago; aged 72; died, June 22.

HARTFORD SWEET, Brookfield, Ill.; College of Physicians and Surgeons, Chicago, 1904; aged 47; died, June 26, following an operation.

WILLMAR HORACE THORWALDSON, Chicago; Northwestern University Medical School, Chicago, 1922; intern at the Wesley Memorial Hospital; was drowned, June 24, near Elgin, Ill.

WILLIAM EDWARD WIATT, East St. Louis, Ill.; St. Louis (Mo.) Medical College, 1879; member of the Illinois State Medical Society; Civil War veteran; aged 78; died, July 3, following a long illness.

JAMES GEORGE KIERNAN, Chicago; New York University Medical College, New York, 1874; assistant physician at Ward's Island Hospital, now the New York State Insane Hospital, 1874-1878, and an officer of the New York Neurological Society; was active in reforms in psychiatry and neurology brought about by that society. He was assistant professor of nervous and mental diseases, Chicago Medical College, 1881-1882, and superintendent of the Cook County Insane Hospital, Chicago, 1885-1889. Dr. Kiernan was professor of forensic psychiatry, Kent College of Law, Chicago, 1890-1902. He was expert for the defense in the Guiteau trial, 1881, the Mooney trial, 1884, and in many other noted cases; died, July 1, of diabetes, aged 71.

CHARLES EDWIN BEAVERS, Barry, Ill.; Northwestern University Medical School, 1899; a practitioner in Barry for twenty-four years and active in church, lodge and community affairs; First Lieutenant, Medical Corps, U. S. A., at Fort Sheridan in 1918; three times mayor of Barry and president of Pike County Tuberculosis Sanitarium board four years; aged 56; died of septicemia following a carbuncle, July 18.

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Illinois Medical Journal

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ILLINOIS MEDICAL JOURNAL

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Editorial

AN OPEN LETTER TO THE OFFICERS AND WORKERS OF THE COUNTY AND BRANCH MEDICAL SOCIETIES.

EDWARD H. OCHSNER, M. D.

President, Illinois State Medical Society.

It is high time that the medical profession of
this state assume active leadership along those
lines in which because of its special technical
training it is able to speak with authority. It is
our duty to ourselves and the public whom we
serve, to exert ourselves and to act in an advisory
capacity to the public on many subjects which
we have heretofore neglected. In order that we
may do this effectively, however, it is necessary for
a large number of individual members of our
profession to inform themselves more thoroughly
on these subjects, in other words, to become ex-
perts on certain problems that confront the pub-
lic and the profession. While each one of us
possesses a considerable amount of general in-
formation on nearly all of the subjects which I
am going to mention, no one of us can hope to
or be expected to master them all and it is only
by assigning different topics to different individ-
uals that the desired result can be accomplished.
In making your plans for the year's work may I
request you to consider the feasibility and ad-
visability of devoting one meeting, or at least a
portion of a meeting, to a consideration of these
suggestions, then call for volunteers to take up
the different subjects and if volunteers are not
forthcoming, assign the different topics to such
members as seem particularly well qualified by
training, study, experience and temperament to
handle them?

We need in this state today five hundred medi-
cal men and women who are well informed on
many quasi-medical subjects in order that they
may act in an advisory capacity to the federal,

state, county and city governments when it comes to matters of public sanitation and public hygiene and many quasi-medical matters of public concern. We need these medical minute men and women who are ready at a moment's notice to appear before legislative bodies, executives, church organizations, women's clubs, associations of commerce and other civic bodies.

Our defeat of the Sheppard-Towner bill was very largely an accident. If instead of the small number of men who made the fight we had had 100 physicians scattered all over the state who were well informed about the objections to the Sheppard-Towner Bill and who would have made it their business to inform the members of women's clubs, civic organizations and the legislators of these objections, the bill never would have had a chance of passing.

The broadening and cultural effect upon those members of the profession who would take up such a study would be of inestimable value. Every physician should have on his desk some one subject pertaining either to the science or economics of medicine in which he is particularly interested and to which he is giving constant thought and study. This is one of the things that broadens the horizon of the individual physician and makes the study and practice of medicine a constant joy instead of drudgery. Among the subjects which I consider worthy of particular attention and study at this time are the following:

1. Federal Aid. 50-50 Schemes.
2. Single Standard for the Practice of Medicine.
 - (a) Cults and Cultists.
 - (b) Quacks and Quackery.
3. General Education:
 - (a) Primary and Grammar School.
 - (b) High School.
 - (c) College.
4. Medical Inspection of School Children.
5. Medical Education:
 - (a) Pre-medical.
 - (b) Medical.
 - (c) Interne.
 - (d) Post-graduate.
6. A Chair for the teaching of Medical Economics in Every Medical College.
7. Nurses' Training.
8. Hospital and Hospital Management.
9. Group Practice.

10. Medical Charities.
11. State Wards:
 - (a) Penal.
 - (b) Delinquent.
 - (c) Insane.
 - (d) Feeble Minded.
 - (e) Blind.
 - (f) Deaf.
 - (g) Miscellaneous.
12. Venereal Diseases Control.
13. Public Health and Sanitation.
14. Personal Hygiene. How, when and where can it best be taught.
15. Periodic Medical Examination of All Citizens.
16. The Doctors' Investments.
17. The Business Side of the Practice of Medicine.
18. The Claims of the Chemical Foundation.
19. Narcotic Drug Control.
20. Lay Control of Medical Affairs.
21. Compulsory Health Insurance. Old Age, Pensions, etc.
22. State Medicine.

Such studies would clear up many now somewhat poorly understood subjects. Take, for instance, the last topic mentioned—State Medicine. Most of us have a vague notion that "State Medicine" would be a serious thing for every one, but how many of us have a clear conception of just what is meant by the term State Medicine and what medical matters can legitimately and advantageously be undertaken by organized society as repeated by the city, state or federal governments. Such a study would supply definite facts in place of conjecture.

The foregoing is simply a suggestion. Other topics may suggest themselves to other physicians. In the smaller county and branch societies it may not be possible to find a sufficient number of members willing or able to make a study of all of these subjects, but each society should do at least a portion of this work. Each member of the medical profession should assume his share of the duty. We should taboo the phrase "Let George do it." If this work is taken up in the right spirit and with the right enthusiasm I am sure most of us will be surprised at the amount of latent talent which exists among the members of the medical profession. Too many of our members lack self-confidence and many of them would be surprised how well they could fly if they

would but test their wings. Such a movement would be particularly valuable in bringing out and developing a lot of young men with ability and getting them interested in problems of vital importance both to the public and the profession.

The members of the medical profession are best qualified to advise the people along these lines. Most laymen are glad and willing to be advised by us in matters of this sort and willing to follow such advice and it is our duty as individuals and as a profession to accept this responsibility and to fulfill this obligation to the public. The individual members of the medical profession have the ability. Here is a wonderful opportunity. Let us show the public the kind of stuff we are made of.

THE COMMITTEE ON MEDICAL HISTORY OF ILLINOIS.

In conformity with the report of the editor at the annual meeting in 1922, and again in 1923, and approved by the House of Delegates of the State Society, recommending the preparation for the Diamond Jubilee of the State Society in 1925, the history of the State Society and medical practice in the state since the incorporation of the society, June, 1850, the president of the Society has appointed a committee on medical history of the State Society as follows: Dr. O. B. Will, Peoria; Dr. Geo. A. Dicus, Streator; Dr. Carl E. Black, Jacksonville; Dr. Charles B. Johnson, Champaign; Dr. James H. Hutton, Chicago; Dr. Charles J. Whalen, Chicago, chairman.

Members of the profession having data in their possession that has a bearing on history of medical progress in Illinois will confer a great favor by loaning same to the committee. Data may be forwarded to any member of the committee; same will be duly acknowledged and returned to the owner if desired.

The profession will be interested in learning of the especial activities of the Society from its founding in 1850 until the beginning of the year 1925. Included should be the membership lists; the history of the parent and the district medical societies; publication; police duty and discipline; malpractice defense; a chronological list of officers, biographies of founders; principal officers and members of unusual prominence; meeting places during the progress of the years, and portraits of those who have carried the burden of

keeping the Society up to its best capacities. Among the reproductions of historic and important documents should be one of the bill for a charter filed in 1850. None of these points should be overlooked. Many others will come to mind as the task progresses.

Members of the Society will be interested in learning how their organization came into being; who were its founders; what they were like; and what men and women, among the host of members from the inception of the Society until the present day, were most active in cherishing the Society and in forwarding its development. It is inspiring to trace the way in which the membership has increased since 1850; the way in which the standing committees were organized and what they have accomplished; the relation of the Society to progressive health legislation—such as the founding of the first state board of health, and the medical legislation enacted, as well as constructive opposition to vicious medical legislation and the attacks on the Society by the quacks and other interests; the Society's survival of attempts at its disruption; and the objectives for which it has striven during its lifetime.

This history and scores of correlative details will be of interest to the profession and of value as a unit in the future history of the State of Illinois, the representative commonwealth of the Mississippi Valley. When the diamond jubilee arrives this record should be ready.

PREPARING PAPERS FOR THE ILLINOIS MEDICAL JOURNAL.

To Members and Contributors:

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relies upon all contributors to conform to this rule.

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All illustrations should be submitted in such forms as to admit of photographic reproduction without retouching or redrawing. Marginal letters cannot always be set in type and should, therefore, be written in India ink and regarded as parts of the original illustrations; or, in doubtful cases, the marginal lettering may be inserted temporarily, with lead pencil, for suitable attention by the editor. Unless specific instructions are given by authors, the printer will be requested to determine the degree of reduction that may most suitably be applied in illustration. Reproduction of illustrations can be effected most satisfactorily, as a rule, when the originals are large enough to permit of considerable reduction in the plates prepared from them.

AMERICANS

According to press dispatches the secretary of the Illinois State Medical Society spoke at the memorial service at East Moline in the morning and at Silvis, Illinois, in the afternoon of August 4th. In his address our secretary spoke against internationalism and made a ringing plea for nationalism. He said in part:

"The will to attend this meeting is evidence of Americanism at heart. We meet, not alone to mourn the death of a man, but also to bow in humble reverence to the will of Almighty God in His plan for working out the destiny of our nation.

"I have been asked to speak for the American

Legion in memorial testimony to a dead Commander-in-chief of all the Americans. The American Legion is made up of men who have known the spirit of service with all its hard discipline, and it is this phase in the life of Warren G. Harding which makes strongest appeal. The spirit of service is a Godly thing than which there is nothing higher in the Christian world. It is born of love and loyalty.

"To volunteer for arduous service knowing that the immediate reward will be criticism requires stamina and all of the moral courage of which good soldiers are made.

"Mr. Harding, upon his advent to the Presidency knew the fickleness of popular favor. He knew as only a newspaper man can know how public opinion is made and that nothing short of spectacular calamity ever creates it fullblown and to the order of the moment. He knew as most men do not know, of the busy groups and the stillwork in offices and behind closed doors which attend the birth and the nursing and the growth of public opinion. He appreciated to the fullest extent that, as President, his every act would be met with misunderstanding and dissension from some influential quarter and, in spite of this assurance, so conducted himself in a maelstrom of disappointed self-seekers and of agitated blocs and of excited partisans, through the most trying period of international readjustment as to merit and to gain the descriptive "calm" and "serene." He knew an approving conscience to be his only reward and in this conduct of a citizen when placed in position of authority, lies the supreme test of character.

"On this day without party and with a single creed, we meet not as a group to memorialize a departed friend, alone, but most strangely stirred, we gather in the largest city and the smallest hamlet, a vast conclave of Americans everywhere, to satisfy a heartfelt longing for the expression of a love and loyalty which must have voice. We have witnessed the unparalleled scene of a funeral train driving 2,000 miles past stricken ranks of men and women silent and still, stunned by an emotion too deep for other expression. There is no man whose death can so stop one hundred million people. We like to feel that death is a promotion whereby one who has exemplified the spirit of service may take reward in a higher service in a better field; and from such we derive consolation. Yet here is a common emotion,

vast and deep and different; and the spirit of Harding, a man of service, must rejoice to have been permitted to be the awakening agent for an intense national consciousness which, for the present generation, can never die.

"We mourn the loss of our commander and are filled with an overwhelming sense of surging loyalty to country. We are reawakened with a shock to the knowledge that our own best service lies in the practise and support of two things which for us are inseparable: the tenets of the Christian religion and the Constitution of our fathers."

OVER-SPECIALIZATION IN PROFESSION

Opponents of the individualistic cite with pride the danger that has arisen of over-specialization in the medical profession with its attendant peril of loss of perspective. Undoubtedly the specialist views the part rather than the whole and the loss of the old-fashioned "family doctor" has both increased the "cost of doctoring" and decreased the opportunities the family doctor had of securing close contact with every face of the life, habits, environment and other causative factors of possible ailments in a case. Memory fails in a recitative of a poem published in a comic weekly where, as a result of specialists in series and sequence, there was nothing to bury when the patient died, but his spirit, and that flew away because everything else has been taken away from him. It is only too true at times. And even that poor devil's estate had gone, what with,

"Fees for this and fees for that
Emptied the wallet, fine and fat,
But still the pains kept chasing him,
Something was turrible wrong with Jim."

The family doctor was a martyr. He worked like an A. E. F. hero and usually he dies poor and has difficulty in finding time in which to die at all. But he would have scorned contract practice or insurance company "shavings." No room for them in those saddle bags with which he trotted, "up hill and down hill," and which held everything from calomel and whiskey to legends as to whence the new baby had come.

The family doctor has wheeled out of sight in his one-time popular doctor's gig. Statistics yield the information that in 1904 there were in the United States 28,142 medical students; and in 1919 only 13,952, or a decrease of over 50 per cent. in 15 years, in the number of men willing

to risk their lives, devote the best earning years of their youth to study and then be legislated into political pawns at less financial return than a journeyman plumber or puddler out at the Iron Works. In 1920, the enrollment for medical students showed a total of 14,088 and in 1921 it approximated 14,850. This is alarming; for enrollment in other lines of collegiate study indicated marked increases. Truly men have discovered that you can earn more and risk less being a lawyer to legislate doctors into penury, or in applied big business grinding their skill out of them than you do in "being the goat."

In 1904 medical graduates totalled 5,747; in 1919, 2,656 or a loss of 3,091 practicing physicians. Post-war conditions and new standards of heroism combined to urge a few more gallant men and women to study for the sake of humanity's sake, and in 1920 there was a slight increase in the number of graduates.

NOT WILLING TO WORK.

UNNECESSARY CHARITY TENDS TO PAUPERIZATION.

One of the discouraging effects of charity is that recipients become reconciled to their fate and lose ambition to become self-sustaining. The curse of alms is its demoralization of character in the recipient.

For ten years, we are told, a Russian immigrant has toiled in this country with the end in view to unite his family in this country. This task has been prodigious, the more so because in addition to saving the money needed, he must assist in feeding and clothing them there. "Starving Russia" was a reality to him, and the constant fear that his loved ones might be suffering was the torturing goal of increased effort and still greater privation on the part of the father that the day might come when, in this land of opportunity, they might be gathered about him and all enjoy the prosperity and freedom found only here.

The day came not long ago. A daughter and her husband were yet in Russia, among those fed on charity. The relief agent who was the messenger of the glad tidings to the family in Russia reports they refuse to come to America, the man evidently in fear of being compelled to work.

"Let Peter Reisel send food and money and we are well off in Russia," was the reported answer

of the son-in-law to the tendered transportation to America.

What a field for speculation as to human nature is opened in this incident!

MEDICAL EFFICIENCY, CAUGHT IN THE VISE OF ABSURD LEGISLATION SEES RELIEF IN SUPREME COURT DECISION

Congress has no more right to limit the amount of liquor that physicians shall prescribe for their patients, than it has to specify the dosages of strychnine, digitalis, quinine, iron, arsenic or castor oil that are to be administered by the medical profession in the attempt to conserve human life and uphold the welfare of the race.

This editorial is written by a man of mature years, who throughout his life has never chewed, smoked, or drunk intoxicants. While the writer has a deep antipathy to nicotine and alcohol, nevertheless he feels that where these drugs are indicated by the physical condition of a patient, that, as a doctor he should be as free to prescribe them as any other item in the pharmacopeia. Just where any body of law-makers or lay-theorists acquires a would-be Divine Right of Drug Dispensation is beyond the capacities of the writer's powers of discovery, and his ideas of the ethics of healing.

Public protection and interference with the healing of the sick are widely separated. Social benefits accruing through the Nineteenth Amendment and the Volstead Enforcement Act should not blind the citizenry, nor above all the judiciary, to the dire menace confronting the country, when the practice of medicine is literally lifted out of the hands of skilled physicians, and transferred to those of the checkers of records, the book-keepers and the entry clerks on the payroll of the federal government.

This is exactly what is done when abstract and by no means competent governmental forces begin to determine mandatorily the degree of alcoholic medication that may be required by individual patients suffering from a large variety of diseases. If these forces can act in this wise with whiskey, theirs is the precedent to assume analogous authority in respect to any drug in general use from quinine to Epsom salts. Where is the sane justification for these abstract forces

to dare to establish a maximum dosage for individual patients? A maximum dosage, let it be repeated, that if exceeded, no matter what the emergency, means a direct violation of the law!

To give the instigators of the law the benefit of the doubt it is most probable that they never had any idea of interfering with medical practice to the degree that has been attempted. Considering that the technical judgment of the physician means the difference between sickness and health, or between life and death to a patient, it is absurd for Congress, through its statutes to attempt to practice medicine at all, as exemplified in its dictation to the medical men, as to what proportions of a drug shall constitute a dose.

Misdirected zeal of proponents of prohibition legislation led them to claim that many physicians prescribe alcoholics for pleasure rather than for pain. The right thing to do,—if this be true—is to hale such unethical physicians into the lime light, prove the charge and make the offenders suffer rather than to put the impost upon the profession at large by limiting the amount of alcoholics that may be prescribed to patients in need of this sort of medication.

In furtherance with this idea, a body of physicians united under Dr. Samuel W. Lambert of New York city, to test the constitutionality of the provisions of the Volstead Act, which limit the amount of spirituous liquor that physicians may prescribe for their patients: "Not more than a pint of spirituous liquor shall be prescribed for use by the same person within any period of ten days, and no prescription shall be filled more than once."

Action begun in February, 1921, resulted in the handing down, May 9, 1923, of a decision by Hon. John C. Knox, a Judge of the United States District Court, holding that the provisions named are unconstitutional, and enjoining the New York federal prohibition agents from interference with medical practitioners in their prescription of alcoholic remedies in kind or amount for their patients.

This decision may be regarded not as a triumph of the "wets" over the "drys" but as a ruling that disclaims the right of government, acting without medical knowledge, to regulate the practice of physicians. The situation has been aptly phrased in the statement,

"This ruling is purely an appeal to constitutional law for the protection of the

medical profession in their discretionary rights to prescribe in accordance with the dictates of their consciences and in harmony with their views concerning the therapeutic virtues of alcoholic medication. . . . The prescription of alcohol for medicinal purposes is not to be regarded as a part of the liquor problem of this country."

In Montana, also the Federal Court, has held as invalid this provision of the Volstead Act.

It remains for the Supreme Court of the United States to pass upon the principle involved as to the extent to which the federal government may control medical practice. If the federal government can dictate how much or how little whiskey a physician may give his patient, then the federal government can have the same dictatorship over calomel, or even mustard foot-baths. Although the decision of the Supreme Court may not be given until late in the year, it is to be hoped that when this judiciary does go on record on the question that it will demonstrate clearly and fully the rights of the profession to prescribe freed from unnecessary, stupid and arrogant interference.

Even the Harrison Act, sufficiently vicious as this measure is with reference to the pestiferous lay-dictation of medical practice, while regulating the method by which narcotics may be secured, very properly contains no element for regulating the amount of opium, codein or heroin which may be prescribed, according to the legitimate needs of individual patients, within any definite period of time.

Where the medical profession is concerned the moot point at issue would appear to lie between the alternatives of fanatical enforcement of the Volstead Act to the degree of dangerous interference with the practice of medicine, or the best aid of the government in conserving the health of the nation and the life of the citizenry.

RAT KILLING AND DISEASE PREVENTION

The following formula is recommended by the United States Public Health Service as being the ideal rat killer.

The most efficient rat poison is barium carbonate, which is one of the few which a rat fails to detect. It is safe to handle, and in amounts necessary for use, it is not dangerous to man.

It has been found that 15 grains are necessary to kill a cat, 20 grains to kill a chicken and that dogs withstand a dose of 140 grains, while 3 grains are sufficient to destroy any rat.

Kind of Bait.—Three or more kinds of bait should be used. Each must be mixed separately with barium carbonate. One kind of bait from each of the following classes should be used. Meat or other animal substance; such as hamburger steak, sausage, canned salmon, eggs, or oysters. Fresh fruit or vegetable food; such as cantaloupe, tomatoes, green corn, baked sweet potatoes, bananas, etc. Miscellaneous foods; milk or cheese, peanut butter, bread, cake, cereals (raw or cooked).

How to Mix.—The barium carbonate must be thoroughly mixed with the bait, so that the rats cannot eat the smallest portion of the bait without getting some of the barium carbonate. In the case of such substances as hamburger steak, cheese, etc., use one part of barium carbonate to four parts of bait. Mix thoroughly with a spoon. Substances which cannot be thoroughly mixed with the barium carbonate as just described (for example, cantaloupe, tomatoes, etc.) should be cut into small pieces and thoroughly covered with the barium carbonate and then worked in with a knife.

How to Set Poison.—The three kinds of bait, prepared as above, should be divided into small portions, about a teaspoonful each, and placed freely about premises, alternating the different baits in the order named. It should be set at short distances, not over ten or fifteen feet. Do not mix the different kinds of bait with each other.

General Instructions.—The morning after baiting, look for dead rats and remove them. Take up baits. Examine these so as to see which have attracted most rats. If any kind of bait has not been touched, use a different bait instead of this. Fresh bait should be used each night.

How Often to Bait.—Bait every night as long as rats continue to eat bait.

Caution.—Keep fowls, dogs, cats, etc., away from bait.

Antidote.—An emetic, followed by Rochelle or Epsom salts.

Bait should be made fresh each day, or at most every second day—a hard stale bait is rarely eaten by a rat. The bait should be distributed in such parts of the building as are frequented

by rats; and this is best done in the evening. A record should be kept of the number of baits so distributed and the number eaten by rats. During poisoning operations, special efforts should be made to keep all food usually available protected from their access.

Extermination of household insects is always desirable and the following suggestions are worthy of note.

There are but two practical ways of getting rid of roaches. Equal parts of sodium fluoride and plaster of paris should be dusted into all crevices likely to harbor them. As sodium fluoride is poisonous to man, care should be used to keep it away from food. Powdered borax or borax mixed with an equal amount of naphthaline flakes is also said to be effective. It is necessary to repeat the operation at intervals in order to keep fresh powder in the cracks to destroy the young as fast as they hatch from the eggs. A much surer way is to fumigate the premises by burning sulphur candles after first sealing the doors and windows of the infested room or rooms with strips of gummed paper. At least 5 pounds of sulphur to be used to every 1,000 feet of cubic space.

Houses sometimes become infected with fleas from dogs and cats. Vacuum cleaning is an excellent means of ridding carpets and hangings of the pest. But the only certain way is to fumigate with sulphur candles as indicated in the previous paragraph or with naphthalene paste.

The fact that bedbugs can live for months without food and can thus remain hidden in crevices in the wall, in beds and in cracks in the floor makes it difficult to control this obnoxious insect. Kerosene, gasoline, benzine or a 5 per cent. solution of carbolic acid are all effective if the bugs can be reached, but since it is usually impossible to force these solutions into all cracks and crevices, fumigation with sulphur is advisable. If it is possible to heat the infested quarters to a temperature of 160 F., by means of furnaces, stoves, or oil or gas heaters, this means will be found effective. It is sometimes necessary to repeat these procedures, as the eggs of the insect are difficult to destroy and time is thus necessary to allow the eggs to hatch.

Head lice may be easily destroyed by applying equal parts of kerosene and olive oil to the hair. Care should be taken in the case of children to

prevent the hair catching fire. Tincture of larkspur is less effective. The eggs or nits may be combed out with a fine-toothed comb dipped in vinegar.

TRI-STATE DISTRICT MEDICAL ASSN.

Des Moines, Iowa, October 29-November 1, 1923

Members of the Illinois State Medical Society are cordially invited to attend and take part in the program.

The following is a partial list of the eminent members of the profession who have accepted places on the program:

Sir Robert A. Falconer, President of University of Toronto, Toronto, Canada.

Dr. Fred H. Albee, Prof. of Orthopedic Surgery, New York Post-Graduate Medical School, New York, N. Y.

Dr. Edward William Archibald, Associate Prof. of Clinical Surgery, University of McGill, Montreal, Canada.

Dr. William S. Baer, Associate Professor of Orthopedic Surgery, Johns Hopkins University, Medical School, Baltimore, Md.

Dr. Willard Bartlett, St. Louis, Missouri.

Dr. Frank Billings, Prof. of Medicine, Rush Medical College, School of Medicine, Chicago, Ill.

Dr. Francis G. Blake, Prof. of Medicine, Yale University, School of Medicine, New Haven, Conn.

Dr. Hugh Cabot, Dean and Prof. of Surgery, University of Michigan, Medical School, Ann Arbor, Mich.

Dr. Richard Cabot, Prof. of Medicine, Harvard University, School of Medicine, Boston, Mass.

Dr. Frederic J. Cotton, Associate in Surgery, Harvard University, School of Medicine, Boston, Mass.

Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

Dr. Byron B. Davis, Prof. of Clinical Surgery, University of Nebraska, School of Medicine, Omaha, Nebr.

Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Dr. Charles P. Emerson, Dean and Prof. of Medicine, Indiana University, School of Medicine, Indianapolis, Ind.

Dr. John F. Erdmann, Prof. of Surgery, New York Post-Graduate School of Medicine, New York, N. Y.

Dr. Charles H. Frazier, Prof. of Neurosurgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Dr. Leonard Freeman, Prof. of Surgery, University of Colorado, School of Medicine, Denver, Colo.

Dr. Willis D. Gatch, Prof. of Surgery, Indiana University, School of Medicine, Indianapolis, Ind.

Dr. Evarts A. Graham, Prof. of Surgery, Washington, University, Medical School, St. Louis, Mo.

Dr. William A. Jenkins, Prof. of Medicine and Clin-

ical Medicine, University of Louisville, School of Medicine, Louisville, Ky.

Dr. Elliott P. Joslin, Prof. of Clinical Medicine, Harvard University, School of Medicine, Boston, Mass.

Dr. Frank C. Knowles, Prof. of Dermatology, Jefferson Medical College, Philadelphia, Pa.

Dr. Dean Lewis, Prof. of Surgery, Rush Medical College, Chicago, Ill.

Dr. William McKim Marriott, Prof. of Pediatrics, Washington University, School of Medicine, St. Louis, Mo.

Dr. Charles F. Martin, Prof. of Medicine, McGill University, Faculty of Medicine and President of The Canadian Medical Association, Montreal, Canada.

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn.

Dr. William J. Mayo, Mayo Clinic, Rochester, Minn.

Dr. Charles N. Meader, Dean and Prof. of Medicine, University of Colorado, School of Medicine, Denver, Colorado.

Dr. Oliver H. Pepper, Assistant Prof. of Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Dr. G. Canby Robinson, Member of Medical Staff, Johns Hopkins University, School of Medicine, Baltimore, Md.

Dr. Ernest Sachs, Prof. of Clinical Neurosurgery, Washington University, Medical School, St. Louis, Mo.

Dr. Clarence L. Starr, Prof. of Surgery, University of Toronto, Faculty of Medicine, Toronto, Canada.

Dr. William S. Thayer, Emeritus Prof. of Medicine, Johns Hopkins University, School of Medicine, Baltimore, Md.

Dr. Allen Whipple, Prof. of Surgery, Columbia University, College of Physicians & Surgeons, New York, N. Y.

Dr. Ray Lyman Wilbur, President of Stanford University and President of A. M. A., Stanford University, Cal.

Dr. John A. Witherspoon, Prof. of Medicine, Vanderbilt University, Medical Department, Nashville, Tenn.

Dr. Hugh H. Young, Clinical Prof. of Urology, Johns Hopkins University, Baltimore, Md.

SYMPOSIUMS

University of Chicago, Medical Department (Rush). Supervised by Dr. Dean Lewis, Prof. of Surgery.

University of Indiana, Medical Department. Supervised by Dr. Charles P. Emmerson, Dean and Prof. of Medicine.

University of Iowa, Medical Department. Supervised by Dr. Walter L. Bierring, Des Moines.

University of Michigan, Medical Department. Supervised by Dr. Hugh Cabot, Dean and Prof. of Surgery. Associates, Dr. Thomas Addis, Prof. of Medicine, Stanford University, San Francisco, Dr. L. H. Newburg and Dr. A. S. Warthin.

University of Minnesota, Graduate School of Med-

icine, Mayo Clinic. Supervised by Dr. William J. Mayo.

Northwestern University, Medical Department. Supervised by Dr. Frederic A. Besley, Prof. of Surgery.

Western Reserve University, Medical Department, Crile Clinic. Supervised by Dr. George W. Crile, Prof. of Surgery. Associates, Dr. T. E. Jones and Dr. U. V. Portmann.

University of Wisconsin, Medical Department. Supervised by Dr. John L. Yates, Milwaukee, Wisconsin.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION

The Mississippi Valley Medical Association, a body that for many years has fostered and maintained the highest standards of Medical Organization will hold its 48th Annual session at Hot Springs, Arkansas, October 9th, 10th and 11th.

A program of outstanding merit and appeal has been arranged. Notable features being, Symposia on Cardio-vascular Renal Diseases and diseases of the upper Abdomen, participated in by some nations' most noted authorities. The individual papers carefully chosen comprise pertinent topics with the maximum instructive value.

A special attraction will be a tour of the Reservation with its wonderful natural phenomena and the session at the famous Government Clinic. All in all this meeting offers a delightful combination of recreation and scientific acquisition. Headquarters will be at the Eastman Hotel. Railroad facilities are ample to the gate-ways of St. Louis and Memphis.

Remember the dates, October 9th, 10th, and 11th. Hot Springs National Park, Ark. Make your reservations now and for more detailed information consult Dr. Chas. Travis Drennen, Chairman of the Committee on Arrangements, Hot Springs, Ark.

SPECIAL COURSE OF INSTRUCTION ON TUBERCULOSIS FOR PRACTITIONERS

During the Autumn Quarter at Rush Medical College the regular course on tuberculosis is given to students. This course, as in former years, is open to physicians and advanced students in medicine. The course consisting of lectures and clinics as outlined as follows:

Beginning with the history of tuberculosis, continuing the study of etiology, aetia of infection, heredity and predisposition, infection and contagion, immunology, histology and pathology, we next take up a consideration of pulmonary tuberculosis, the symptomatology, diagnosis, prognosis and treatment. Particular attention is given to the physical examination by inspection, palpation, percussion, auscultation and roentgenology. The medical and surgical treatment of pulmonary tuberculosis will be fully considered including heliotherapy, hydrotherapy, reconstructural or occupational therapy,

etc. Tuberculosis in children and the various complications like tuberculosis and pleurisy, tuberculosis and pregnancy, tuberculosis of bones and joints, genito-urinary, skin, etc., are studied. Tuberculin and pneumothorax will receive special consideration.

This course will be given every Wednesday and Saturday morning from 9 to 11 o'clock beginning Wednesday, October 3rd, continuing to Wednesday, December 19th, inclusive. For particulars communicate with Rush Medical College, 1748 W. Harrison St.

(This course which in former years was given during the Summer Quarter will be given in the Autumn Quarter this year).

RESEARCHES INTO THE VISCOSITY OF THE BLOOD IN MORPHINE INTOXICATION

PAUL SOLLIER, M. D.,
PARIS, FRANCE

In the prior researches set forth in the treatise of Dr. Morat ("The Blood and the Secretions in the Progress of Morphinomania and Disintoxication." *Thèse de Paris*, 1911) we have demonstrated that the blood presents during intoxication only slight morphologic and structural alterations, and that there appears only a slight hyperglobulia, with reduced globular and leucocytic resistance. The coagulation, however, which is nearly normal, is slightly retarded.

While the drug is being withdrawn, there is a considerable increase in the hyperglobulia and hyperleucocytosis. During the first few days of withdrawal, polynucleosis will be found to appear, with disappearance of the eosinophile bodies, and mononucleosis with an eosinophilic tendency will set in about the fifteenth day, with the appearance of abnormal shapes (large macrophages and myelocytes).

There appear at the same time modifications in the globular resistance, *viz.*, an increase in the resistance of the red blood corpuscles and a decrease in that of the leucocytes.

The speed of coagulation is above normal, and very pronounced morphologic and structural modifications occur, both of the red and the white blood corpuscles. The red blood corpuscles show indications of hyperchromia, and microcytes and poikilocytes are found to make their appearance. The leucocytes show numerous nuclear and protoplasmatic changes in various degrees, including even complete degeneration of the white corpuscles.

The composition of the blood, as well as the resistance of the red and white blood corpuscles, will not become approximately normal, and the changes or alterations in the white blood corpuscles will not disappear, until about the fortieth day after beginning the withdrawal of the narcotic drug.

While pursuing these researches into the condition of the blood of sufferers from morphinomania, we have investigated the viscosity of the blood in the various stages of intoxication and detoxication.

Four facts made it appear reasonable for us to presume that there must be a more or less pronounced

modification of its viscosity during the period of withdrawal, *viz.*, the constant hypotension, the slowing down of the pulse, the excessive coagulability of the blood, and finally the alterations in the red blood corpuscles.

We have examined into this viscosity in accordance with the technical process devised by Messrs. O. Josué and Parturier (blood citrated to the extent of one-tenth part, and use of the Hess viscosimeter).

The results we obtained were as follows:

During the period of intoxication, when there is generally hyperglobulia (polycythemia), the total viscosity of the blood is found to be increased.

This increase is chiefly due to the viscosity of the corpuscles inasmuch as that of the plasma remains normal.

While the narcotic drug is being withdrawn, the total viscosity increases still further, and such increase continues to be due to a much larger extent to the viscosity of the blood corpuscles, than to that of the plasma.

For fifteen to twenty days after withdrawal of the drug of addiction, the viscosity becomes nearly normal, and it does become normal between the thirtieth and the fortieth day, a condition lower, therefore, than it was during the period of intoxication.

The following figures show, by way of example, the results of observations in the case of a person afflicted with the heroin habit, who had been taking the drug in doses of 45 centigrams for five years.

Its viscosity at that time proved to be:

Blood as such (including corpuscles and plasma)	5.3
Plasma	1.9
Corpuscles	3.4
Number of corpuscles	5,340,000

Following my customary technical method, morphine was substituted for heroin. In conformity with my previous statements regarding the more powerful toxic effect of heroin, this substitution results at once in an improvement in the general condition of the patient, and modifies the viscosity of the blood:

Blood as such (including corpuscles and plasma)	4.9
Plasma	1.9
Corpuscles	3.-
Number of corpuscles	5,162,500

On the next following day, when the patient's drug was being withdrawn:

Blood as such (including corpuscles and plasma)	6.2
Plasma	2.2
Corpuscles	4.-
Number of corpuscles	5,650,000

Ten days after withdrawal, the viscosity was almost normal:

Blood as such (including corpuscles and plasma)	4.2
Plasma	1.8
Corpuscles	2.4
Number of corpuscles	4,850,000

Twenty-one days after withdrawal, the viscosity had become normal again:
Blood as such (including corpuscles and plasma)4.-
Plasma1.8
Corpuscles2.2
Number of corpuscles4,612,500

Forty days later, the viscosity as well as the number of blood corpuscles still remained the same.

Inasmuch as the patients receive repeatedly purgative treatments while the dose of the drug is being reduced and completely shut off, and as their intestinal (alvine) and other evacuations are extremely abundant, owing to excessive glandular secretion, we consider this excessive viscosity to be due to dehydration of the organisms. However, it appears from the figures that the viscosity of the plasma varies only within very narrow limits, while there is a considerable increase in the viscosity of the blood corpuscles.

On the other hand, we do not consider the variations in the hyperglobulia to be sufficient to furnish an explanation for the rate of increase of the total viscosity. In our opinion, its cause is to be found in another factor, acting in addition to the hyperglobulia found to be present. In our opinion, the factor can only consist in the morphologic and structural changes which occur, as already stated, as soon as the patient is freed from the drug, the friction of the corpuscles being singularly increased owing to the fact of their being out of shape and cut up.

These facts, which are throughout in agreement with those previously established by us in connection with the resistance of the blood corpuscles and the variations in the composition of the blood during the elimination of the poison, demonstrate that the clinical phenomena, accompanying the withdrawal of morphine, are due to organic causes which must necessarily be present, similarly as in the case of certain infectious diseases, and that the psychologic reactions which appear to occur when the drug is withheld, are the result of actual organic conditions, and not to vicious mental habit, as some people still claim them to be.

They enable us to understand, furthermore, the danger resulting from the use of toxic remedial agents (such as hypnotics, sedatives, *et al.*) at the time when these organic changes occur, since they are liable to impede, or stop them completely.—*American Medicine.*

AS OTHERS SEE US

The attached long quotation is given our readers for several reasons, and we are sure our readers who may not have read the compliments and thrusts in the quotation will enjoy it. In the first place the writer, Mr. John D. Barry, commands a wide hearing in the column which he contributes almost daily to the *Minneapolis Tribune*, under the heading "Living the Life." Our quotation is Mr. Barry's second of two discussions of doctors which have appeared within a few days, and the second is not unlike the first.

It is with certain fallacies, mainly in the form of inferences that seem upheld by Mr. Barry, that

we wish to deal. All sorts of inferences will be drawn from the statement that medical men too readily make war on ideas that they consider outlaw and are led to courses of action worthy the Dark Ages. No doubt medical men have acted in the past, and will act in the future, in the spirit of the age in which they lived and are to live; and if martyrs strew the path of civilization they were victims of the Dark Ages when the science of modern medicine and the spirit of the present age were unknown. The same is true in both science and religion; and it is wholly wrong to include the physicians or the clergymen of today with the same classes of men in the Dark Ages.

The statement that the medical profession must not be allowed to maintain an iron grip on legislation, as it would like to do, is amusing, and yet the inferences that may be drawn from it are exceedingly harmful. The only general legislation asked for by the medical profession is that all men who practice medicine (medicine as defined by the State itself) shall obtain the education that common sense says is demanded of men who deal with health and life. The doctors of America have well-nigh made fools of themselves in their efforts to keep the practice of medicine in the hands of educated men. They know well the limitations of medical science and that only the educated mind can deal, with any degree of success, with the problems that confront the physician; and the States recognize this fact by establishing courses of training in their medical schools, as most states do, that will enable such schools' graduates to render the best service possible in their line. If the people are too ignorant to recognize the superior fitness of the educated man over the uneducated one, then the State must protect the health and life of such people by so-called medical-practice laws. Are physicians getting "an iron grip on legislation" when they ask the State to establish a medical school and to enforce a medical-practice act which simply demands that education be a qualification for a license to practice medicine?

The doctors are accused, by inference at least, of total ignorance of the influence of the mind over the body. We venture to assert that the chief charge brought by educated people against their family physicians is that their physicians do not give enough medicine, but depend upon nature to heal both body and mind. It is the presence of this feeling, in one form or another, that has made the financial success of the faith and the mind healers so great. These healers are just as ignorant of the influence of the mind over the body as is the man who does surgical operations or gives drugs with a limited course of surgical or medical education, of the time to do surgery or give medicine.

It is inferences drawn from such statements as those made in our long quotation that send people, educated and uneducated, to the charlatans in medicine.

Physicians are largely to blame for the public's

ignorance of the problems they deal with and of the limitations of the science of medicine. Mr. Barry's jolts will do them good.

THE MEDICAL PROFESSION

John D. Barry

"There's something about doctors. You can often pick them out in the street."

These words, spoken by a woman, a shrewd observer, I've been reminded of frequently during the past few days. I'm inclined to think they're true. There really is something about most doctors that sets them apart. The explanation isn't to be found merely in their way of dressing. They dress very much as other people do. Perhaps a little more soberly than most men. Among a good many doctors there's tendency, perfectly laudable, to take themselves and their work seriously and to play up.

Perhaps the distinctive quality is the professional air of doctors, altogether different from the air of lawyers, for instance. It's not easy to define and yet it's plain enough. It comes, very largely, at any rate, from intimacy of relation with other people, from sense of responsibility and from a fine kind of assurance, the kind related to self-respect and to the feeling of concern with work of importance.

Here is where most doctors are to be envied, it seems to me. They think their work is worth while. They love it for its own sake. They have an immense advantage over those, a pitifully large number, by the way, who think their work isn't worth while and long to be doing something else even though what they are actually doing may be financially profitable.

In another way doctors are lucky. Their work tends to keep them from growing stoddy. If they are good for anything at all, they have to exercise their wits. The mere routine practitioners, of course, aren't to be counted here. They're like all routine workers. They reach a certain point and there they stick. By sticking there they may do a good deal of mischief. The progressive doctors, for instance, realize that their work is changing all the time. Discoveries are made every day, some of them revolutionary. The best men are always on the track of what is new. And yet they have to watch out to avoid mere faddishness and blundering experimentation.

Here, as all observers of what is going on now in the way of health study are well aware, is a ticklish subject. Though individual practitioners realize the importance of being alert and open-minded, the medical profession as such is of all professions one of the most hide-bound and narrow and tyrannical! It stands on certain principles that it regards as fundamental without being absolutely certain whether those principles are fundamental or not. Only too readily it makes war on ideas that it considers outlaw and on systems out of harmony with established practice. In its very devotion to the

maintaining of high standards it may be led to courses of action worthy of the Dark Ages. The history of medicine is strewn with records of martyrdom. In its concern to head off the influence of false gods it sometimes goes to extremes of ruthlessness.

At this time of all times, there is need of a wider range in freedom for the iconoclasts, the breakers down of those traditions that have hardened into impositions operating like dogmas. There's no place for dogmas in medicine. And the medical profession, immensely useful as it has been and it's bound to be in the future, must never be allowed to maintain an iron grip on legislation as it would like to do.

During the past half century there has been an astonishing change in the relation between doctors and the world. Once they were concerned almost wholly with the body. They placed their chief reliance on drugs. The mind and the spirit they left to the educators and to the clergy. With the decline in the appeal of religion, so notably illustrated for example, by the popular indifference today to the reading of the Bible, the doctors began to take on something of the authority so long held by the church and by the schools. At the same time they were beginning to appreciate as they had never done before the way the body and the mind work together and influence each other.

What a tumble drugs have been taking. And yet it's safe to assume that it isn't nearly so great as it's going to be during the next quarter of a century. Many of the very doctors that used to be scornful of the claims made for mental influence are now waking up to the power of that influence and utilizing it in their practice. They are seeing that it's in the field of the mind the most significant revelations are being made.

There's the present-day talk about glands. It may seem as if what has already been found in regard to glandular control were merely physical. It goes much deeper. When it points out the effect of glands on the mind it indirectly calls attention to the effect of the mind on glands. It shows that there's interplay there, and that, no matter how strongly the individual may be influenced by his physical endowment, he nevertheless has within himself the means of remaining captain of his soul.

Some one has called the doctors "the new confessors." The description is apt. In some ways they have more power than the most orthodox of the clergy. There's the matter of operations, for instance. Now that we've passed out of the period when drugs were the chief reliance of doctors we are in another period very similar, when surgeons are having their own way and casually sending people to the operating table. Is it at all unlikely that the not far distant future will look back on the present with amazement as the era of the flesh and bone cutters? Already it looks as if, even in the realm of surgery, the mind might be about to

work an influence almost magical. In the medical profession itself echoes are heard of a questioning about the widespread use of the knife and its effect on organisms so nicely balanced, so complex and, in spite of science, as yet so imperfectly understood.

INCREASING MORTALITY FROM DIABETES

The recent greatly increased interest in diabetes, due to the discovery and use of insulin, makes timely the recognition of the fact that mortality from this disease has increased considerably for fully twenty years. Since 1919 the rise has been continuous.

The Census Bureau has recently published some interesting figures showing striking geographical differences in the mortality rate resulting from diabetes. Tennessee has the lowest rate for the white population—a little over six in one hundred thousand of population. New York shows the highest—nearly twenty-two in one hundred thousand. New Jersey, Pennsylvania and Massachusetts also show very high rates, while the southern and western states as a whole show low figures.

These geographical differences are in accord with medical findings concerning the disease. It is well known that white persons are much more susceptible to diabetes than colored persons. This fact accounts for the higher death rate in the northern and eastern States than in the southern. It is also known that susceptibility to the disease varies greatly among the several white nationalities. The Jews and the Irish seem especially susceptible to the disease, and the population of New York and New Jersey contain large number of these two stocks. Also, the diabetes death rate rises rapidly with advancing age, so localities where there is a large proportion of old people will give a high rate. This probably accounts for the high death rates from the disease in Maine, New Hampshire and Vermont, where there are more old people than in many of the other States. Another well known fact is that there is a much higher incidence of the disease among women than among men.—*N. Y. M. J. & Medical Record.*

TOO MUCH MOONSHINE

PROHIBITION COMMISSIONER HAYNES SAYS ONLY ONE PER CENT OF MOONSHINE IS GENUINE LIQUOR

One per cent of 80,000 samples of liquor seized by prohibition agents during the last fiscal year and analyzed in government laboratories, was genuine, said Prohibition Commissioner Haynes in a statement given out at Washington last week, reiterating that adulteration of bootleg liquor was leading to serious physical consequences.

Mr. Haynes said the four sources of bootleg liquor were moonshine, redistilled denatured alcohol, smuggled goods and liquor illegally withdrawn from bonded warehouses.

Drinking the moonshine liquor, he quoted J. M. Doran, head of the government laboratories, as say-

ing, may not directly cause death, but its toxins are cumulative and result in death if indulged in for a protracted period.

Redistillation of denatured alcohol, Mr. Doran said, fails to remove the inherent poisons, wood alcohol, benzol, ether and other deleterious matter being retained in the beverage. It is impossible to detect the presence of wood alcohol without a chemical analysis and three ounces have caused death.

"Smuggled goods and liquor illegally withdrawn from bonded warehouses constitute the other sources of supply," the statement issued by Mr. Haynes said. "A large part of this is doctored and stretched many times and sold in fake containers. Proof of this is shown in the quality of liquor seized from the rum-running fleets off the Atlantic coast recently."

ESSENTIAL ENURESIS

WALKER in *The Practitioner* of London for February, 1923, states that the habits and diet of the child should be carefully considered and definite rules laid down. As the majority of children suffering from incontinence belong to the "highly strung," intelligent, excitable class, an attempt should be made to counteract all anxiety, excitement, or mental strain. The mere regulation of the amount of homework permitted or the interdiction of examinations is sometimes sufficient to alleviate matters. Physical exercise and outdoor games, unless excessive, are beneficial. Massage, cold baths, douching and subsequent rubbing down with a rough towel—in a word, anything that is likely to improve the muscle-tone and general health—is to be encouraged. Late hours, entertainments and excitements are, on the other hand, to be interdicted. No great restriction need be placed on diet, beyond the forbidding of articles likely to cause gastrointestinal disturbance or to result in the excretion of irritating products in the urine. The principal meal should be taken in the middle of the day, and only light food taken before going to bed. At least an hour should elapse between the taking of the evening meal and going to bed, for the kidneys secrete more rapidly after a meal, and the urine is more liable to contain irritating products during this period. Coffee or tea should not be given, for saffaine tends to increase the excitability of the bladder and encourage automatic micturition. The amount of fluid taken during the day need not be regulated, but drinks should not be allowed immediately before retiring.

In those cases in which there is a definite weakness of the bladder sphincter, and even in other types of cases, great benefit is often to be obtained by means of deliberate training of the bladder. The child is encouraged during the day to hold his water for longer periods, and learns thereby that immediate submission to the call to micturate is unnecessary. Such experience is not without influence on his subconscious mind, and reacts favorably by night as well as day. The mattress on which the child sleeps should be firm, the bed-

clothes light, and the room kept at a sufficient temperature to prevent chilling. Sometimes, when dealing with an irritable bladder in a child who shows precipitate micturition during the day, it is beneficial to raise the lower end of the bed so as to relieve the sensitive trigone from pressure, and allow the urine to collect in the upper part of the bladder.

A great many drugs have from time to time been favored in the treatment of enuresis, amongst others belladonna, potassium bromide, nux vomica, antipyrin, extract of *Rhus aromatica*, hyoscine, hydro-bromide, and thyroid extract. Often these drugs have been used indiscriminately, and without any reference to the type of case under consideration. It is obvious that to exhibit a depressant such as potassium bromide to a child whose sleep is already so profound that intercommunication between his higher and lower centers is lost and automatic micturition established, is the very worst form of treatment that can be imagined. Similarly, the use of thyroid extract in a child of the excitable hyper-thyroid class is equally disastrous. It is only by careful consideration of the class of case under treatment and the kind of sleep to which he is subject, that satisfactory results can be obtained from drugs. Taken as a whole, the drug which is most often found useful is tincture of belladonna, beginning with 7 minims t. d. s. and rising up to 20 or more. During the period of treatment with larger doses of belladonna, the child should be under strict medical supervision to prevent the danger of an overdose. Thyroid extract, strychnine, and other excitants should only be used when dealing with the apathetic, atonic class of case.

Local treatment in young children should be avoided as much as possible. In older children it is more likely to be effective, but whether this is due to any real local action or to suggestion is often difficult to decide. Catheterization, dilatation, and instillation of silver nitrate in the posterior urethra have all been used at times, and have claimed success. In the same category of treatment must be placed the somewhat barbarous method of ligature. This consists of closing by means of a ligature or collodion the end of the prepuce, so that it is distended at the moment of involuntary micturition, and the patient awakened by the pain. A less brutal and more ingenious modification of this principle has been devised by Genouville, who, in order to wake the child at the moment of involuntary micturition, arranged a metallic network in the bed which when moistened completed an electric circuit and caused the sounding of a bell.

Finally, amongst the local methods of treatment must be mentioned electricity. The most usual method of employment is as follows: A urethral electrode is used, consisting of an insulated sound terminating in a metallic, olive-shaped button. This electrode is introduced into the prostatic urethra, and then withdrawn sufficiently to cause the metallic button to be pressed against the membranous urethra. It is then connected with the negative

pole of an induction coil, the positive pole of which is linked up with a large abdominal electrode. The intensity of the current should be such as to cause no distress to the patient, the sitting lasting five or six minutes and being repeated every three or four days. When electrical treatment is applied to small children, intra-urethral methods are unsuitable. In such a case the electrode, instead of being introduced into the urethra, is merely pressed against the posterior part of the perineum in front of the anus. In addition to faradic, galvanic electricity may be employed, or in the case of adult women the high frequency current. The exact method in which electricity acts in such cases is a matter for speculation. When the sphincters are atonic, it is obvious that excitation by means of electrical stimulation is likely to be beneficial. In older children, in whom other treatment has previously failed, "electrical magic" may have a profound psychological effect.

DRUGGISTS TO TEST LIQUOR LAW

A test to determine whether the Federal government has the right to enforce its rules and regulations under the Volstead act pertaining to the use and sale of non-beverage liquors and alcohol on druggists in New York State was filed early in July in the New York County Supreme Court by Alexander Savitch, a druggist of 10 Hester Street, against Palmer Canfield, Federal Prohibition Enforcement Director.

The suit is in the nature of an application for an injunction to restrain the Federal authorities from interfering in any manner in this State with the pharmaceutical use and sale of liquors and alcohol not intended for beverage purposes.

Mr. Savitch, in his complaint, recites his grievances as follows:

"That upon information and belief, defendant has no power or authority under any law of the United States to stop complainant of his right to purchase and use alcohol for manufacturing U. S. P., N. F. and A. I. H. preparations; to compound physician's medicinal prescriptions in which alcohol is used as a solvent, for extraction and preservation and as a therapeutic agent. Complainant further avers that the Eighteenth Amendment of the Constitution grants to the government only the power to prohibit the manufacture, use and sale of intoxicating liquors for beverage purposes, and that the State of New York, or the people thereof, have reserved all powers for the use and sale of alcohol and liquor for non-beverage purposes by licensed pharmacists and registered pharmacies in the State of New York.

EARLY OBSERVATION

The Teacher—What bird has been thought by some to bring sorrow and trouble to houses over which it hovered?

Bobby Multikids—The stork.

THE WAY THE CHIROPRACTORS DO IT

The following is from the program of the Twentieth National Convention of the U. C. A., August 26 to 31, 1923. The Palmer School of Chiropractic:

I wonder how many chiropractors realize the tremendous struggle that is going on between chiropractors and those other practitioners who are parading under the fair name of Chiropractic, but who practice anything but that? I wonder how many of us realize the organized, concerted effort that is being made to strangle the movement of us straight chiropractors for the ultimate goal for which we are striving? I feel that if everyone of us were fully awake to the situation, we would be more actively engaged than we are in protecting our interests.

The P.S.C. has staked its future upon the belief that the straight boys and girls in the field were squarely behind us, when it came to protecting the interests of Chiropractic. We saw that the ultimate end of permitting other methods to parade under our good name would eventually lead to oblivion and lost confidence in the public mind, because there would be many brands of Chiropractic so far as the public believed.

For this reason we set about to educate the public as thoroughly as we know how on the subject of Chiropractic. We have educated them only on Chiropractic. We have made no attempt to cater to the hanger-on who is attempting to ride to success on our good name. As a matter of fact, the campaign of The Palmer School has been effective in bringing to the public the message of what Chiropractic is, and in just the proportion that it has done this, it has affected the business of the hanger-on. This could have only one result, and we foresaw it in the beginning; yet, because of our confidence, and because of the fact that we knew the public had a right to the facts, we carried on our campaign.

The natural result of it all is that every anti in and out of the profession, is organized against us. Every man whose business has been hit by our campaign, is no longer a passive enemy, but he is an active fighting machine, organized with all of the other antis in a crusade and a campaign against The Palmer School.

We are frank to admit that this campaign has hurt us. We are frank in telling you straight boys that the work of the antis has been effective, in part, and that today we seriously feel the effects of that organization. Our future rests in your hands. We have always had faith in you. We still have faith in you, but we want you to realize just exactly the situation we are in, and we want you to redouble your efforts to bring students to The Palmer School FOR THIS COMING SEPTEMBER CLASS, because by this method alone will we be able to carry on our campaign of keeping Chiropractic clean. Our battle is your battle; our interests are your interests, and our aims are

the same. The campaign that we have been carrying on has been for the purpose of protecting the public, of protecting Chiropractic, and of protecting you. In return we are squarely asking that you get behind us actively and fight to bring to The P.S.C. the support that it must have to continue.

PROTEIN HYPERSENSITIVENESS CAUSING ASTHMA KNOWN FOR CENTURIES

NOTHING NEW UNDER THE SUN

If the average doctor were asked to name some essentially new and modern ideas concerning the reaction of the body to outside agencies, it is probable that many would at once think of those which the study of immunity has brought to our knowledge, and among these none seem more remarkable than the specific and nonspecific hypersensitiveness so often met with.

It seems possible, however, that as early as 1552, Cardan had observed the effect of hypersensitiveness against goose feathers in the causation of asthma and applied his knowledge in treatment with success. John Hamilton, Archbishop of St. Andrews, Edinburgh, was forty years of age in 1552, and for ten years had suffered from asthma. In spite of treatment by eminent physicians, he grew worse, and finally called to his aid Jerome Cardan, professor of medicine at Pavia, the most noted physician of Europe. For forty days after his arrival he did not begin treatment, but allowed the archbishop's physician to carry out the advice given at a consultation held in Paris with Sylvius and Fernel, from which no improvement resulted and Cardan then took charge of the case. The most interesting feature of Cardan's treatment was that he forbade the archbishop to sleep on a feather bed and made him use a linen pillow. The archbishop improved speedily and was soon so well that he consented to Cardan's return home. He gave him 1,800 gold crowns, much more than the price agreed upon, in addition to many presents of considerable value.

This interesting story, of which only the barest outline is here given, may or may not indicate that Cardan had observed the untoward effects caused by hypersensitiveness. There is no proof in the narrative that the interdiction of the feather bed was the result of experience, and the cure may have been the result of getting away from the feathers, though ordered by the physician for others reasons.

The patient was "a great eater and drinker, and took no exercise; he worked hard, kept irregular hours, and was not shy with the ladies." Cardan's treatment was characterized by common sense. He avoided drugs and blood-letting, and ordered a routine in which "personal hygiene, diet, exercise, cold baths, rest and sleep" were the factors depended upon.

Cardan was a remarkable man in many ways, had a wide acquaintance among notable men, was a student and an observer, a rigid critic of himself, and in addition to his medical attainments was a noted writer on mathematics and algebra. He left an autobiography

which has been called "one of the three great biographies in literature."

May not such a man very well have observed cases of protein hypersensitiveness, and applied his knowledge in his practice? Why did he forbid the use of the feather bed, and what part did this play in the recovery of the archbishop?—*Am. J. of Public Health.*

WE HAVE GONE WILD ON STATISTICS

The *Manufacturer's Record* (Baltimore) says: Here in the United States "we have gone wild on statistics and equally as wild on the fetish of business cycles." The Baltimore editor feels it is time to complain that "the country is flooded with the views of men who pose as great authorities and great statisticians, pointing out by their charts of cycles and statistics this, that and the other, most of which never happens. If once in a while these prognosticators prophesy aright, they use that fact as a basis for building up for themselves a great reputation as seers and prophets of business." Continues the Baltimore editor:

"The average business man who has intelligence enough to conduct a business of any importance is generally in a better position to foretell business conditions than are many of these self styled prognosticators or statisticians or business-cycle advocates. The country is surfeited from universities, from government sources, and from private concerns, with statistics. We breakfast on statistics, we lunch on statistics, we dine on statistics and the nation has statistical indigestion, and its brain is fagged and beclouded by statistics.

"The writer of this has for more than forty-five years studied statistics, sectional, national and world statistics, and he recognizes that there are many statistics of much value when rightly interpreted. But we believe that at least one-half of all statistics put out at the present time to influence business men one way or the other should go to the scrap-heap of useless figures. Every department of the Government seems to have gone crazy over statistical work. Every department is apparently afraid that some other department will beat it in the race, so day after day the mails are loaded down with the reports of this, that and the other from government sources, bearing on everything on earth. About nine-tenths of this information is practically worthless. One-tenth of it would cover everything that the country needs to know about statistics.

"HOME HOOCH"

Delicious, healthful and cooling summer drinks can be made in the home and enjoyed by the whole family. The children can be easily taught to make these drinks.

Bulletin, Chicago Department of Health

ENURESIS IN CHILDREN

In the *Archives of Pediatrics* for March, 1923, SAXL and KURZWEIL state that having tried all the mentioned methods they will try to give a concise description of the treatment as used by them. First and foremost, they standardized certain rules and regulations pertaining to all cases of enuresis which must be carefully observed by the parents and the patient. For the sake of clarity, they have combined these rules and the explanations and reasons for their use:

No coffee, tea, cocoa, or spirituous liquors. The reason for this must appear self-evident, because the first three mentioned all contain caffeine, which is a well-known diuretic. Alcoholic beverages also act as diuretics by irritation and stimulation of the renal parenchyma.

No fluids, of any nature, four hours before the hour of retiring. In addition, they insist that the supper should consist of solid food at a stated time, and emphasize the fact that the child *must void* before retiring. They do this in order to have the bladder emptied at bedtime, and so they are sure that the diurnal specimen has been voided.

Hydrotherapy, which consists of a cold friction rub to the chest, sides, and lumbar spine, is sometimes advised in older children in order to relieve the hyperemia and congestion of the internal organs.

Elevate the foot of the bed one or two inches from the floor. This is done to allow gravity to aid by the urine flowing against the bladder vault rather than the trigonum, where it acts as an irritant.

Try to have the patient sleep on the right side and not on the back. Congestion of the spine results from the latter posture and is avoided in the former. This can often be accomplished by the late Professor Jacobi's method of tying a towel around the patient with the knot at the back.

Hands to be kept out of coverings. To prevent subconscious friction of the genitals.

Take prescribed medicine regularly and exactly as directed.

Patient or parent must present, at each subsequent visit, a written chart of his or her progress. They require this so as to encourage enthusiasm on the part of the patient, and, at the same time, they have a chance to estimate the degree of improvement obtained in a given period of time.

They divide therapeutic treatment into several groups according to the etiology.

Under Group I the focal causes, namely, oxyuris vermicularis, masturbation, cystitis, and vulvovaginitis; and Group II, the general ailments, namely, anemia, malnutrition, neurasthenias and neuroses, and neurogenic diseases; they treat each case by the remedies that are well known to the medical profession at large. They, however, mention strychnine as an adjuvant in the cases of anemia

and malnutrition, where asthenia and not hyperemia is the etiologic factor.

In Group III, when there are endocrine disturbances thyroid and posterior pituitary extract are given because it is well known that the posterior pituitary has a tonic effect upon the bladder musculature.

Group IV is treated symptomatically.

For Group V they have found the use of atropine in large doses to be of considerable assistance. This is given in the following way:

Atropine sulphate, 0.0065;

Aq. dest. q. s. ad 30.000.

M. et sig. gtt. as directed.

One drop of the above solution is equivalent to 1-500 gr. of atropine. They start by giving 1 to 3 drops t. i. d., increasing one drop in 24 hours until the desired result is attained. The fact must not be forgotten that while the patient is under the atropine treatment great caution should be taken regarding symptoms of toxemia, which are disturbances of vision, dry mouth, and rash. The tolerance of children to atropine is greater than that of adults. They state they have often gone as high in their dosage as 1-25 of a grain of atropine t. i. d. without evidence of toxicity. [We would consider this dose definitely toxic.—Ed.]

In brief, they feel that the following conclusion is justifiable, namely, that the majority of cases of enuresis are amenable to treatment when diligence and perseverance are patiently observed by the physician.

WHY NOT MAKE THE PRESCRIBING OF ALL DRUGS UNLAWFUL

The bill to prohibit physicians from prescribing beer for medical purposes is one of the most offensive pieces of tyranny in our history. Whether it is the tyranny of a majority, which we doubt, or of an organized minority bullying the timidity of politicians, which we believe, it should be protested vigorously as inconsistent with American principles and the fanatical perversion of a reform.

There are any number of deadly poisons in the materia medica used legitimately for alleviating pain or for some other therapeutic purpose. Morphine, chloral, strychnine, arsenic, cocaine, many coal tar products, are in familiar use in many forms. But they are also abused by addicts, as is well known, and the agencies of the law are not able to prevent this evil any more than they are able to prevent murder and robbery.

Why not, therefore, make the prescribing of all these drugs unlawful and prohibit their manufacture or importation?

That would be analogous to the prohibition of the prescription of beer for medical purposes. There are morphine and cocaine addicts. To protect them and prevent the abuse of these drugs, why not deprive all those who need them of their benefit? Because there are doctors and druggists who carry on an illicit traffic in habit making drugs, why not

prohibit all doctors from giving their patients the benefit of such drugs in proper circumstances?

The medical prescription of beer might be abused by a small minority, always under the fear of exposure and prosecution. It is because of this minority that the normal and law abiding must be deprived of a legitimate use. This is an illustration of the perverted viewpoint of the extremeist prohibitionist and his abettor, the professional moralist agitator. Our American instinct as freemen, our American common sense should revolt against such perversion of right policy, and those who recognize the good achieved by the abolition of the saloon and the workings of prohibition in its general application should be the first to resist the excessive proposals of extremists. Intemperance in temperance laws deserves and will receive rebuke. The reaction against such a measure as the medicinal beer law will be a good deal worse for the cause of temperance than any abuse of the right of prescribing beer could be.—*Chicago Journal*.

NEW TREATMENT FOR PARESIS

Paresis, the disease known as general paralysis or softening of the brain, has always been considered by physicians to be a progressively fatal disease. Few patients who suffer from this disease recover. The mind is affected, and during a long period of years the symptoms increase in their intensity. When the drug known as arsphenamine (salvarsan, "606") was discovered to have special virtues in the treatment of syphilis, and when it was known that general paralysis was due to the effects of syphilitic disease, it was hoped that some advance might be made in controlling the progress of paresis. Thus far attempts have not resulted in any striking recoveries, although in some instances highly beneficial effects have been reported. This state of affairs has caused medical investigators to continue their attempts to find a method of controlling the progress of paresis. During the last few years certain German investigators, basing their efforts on the knowledge that certain types of bacteria cannot live in the presence of others, just as certain human beings find it difficult to live with other species of animals, have attempted to reach the cause of paresis by injection into patients with paresis the blood of patients with malaria. While the results have not been conclusive, the method has been carried out on a large number of patients and in a considerable number of instances with sufficient success to warrant the belief that it may have virtue. It is interesting to learn the process by which the investigators arrived at their decision to use this method. They had observed that patients with paresis tended to improve when they became ill with malaria. It has long been known that malaria may be controlled by the proper administration of quinine. It was therefore decided by the European investigators to inject blood infected with organisms of malaria into the patients, and then, after they had been subjected for a certain

time to the malaria, to cure them of the latter disease with quinine. As has been said, the results in many instances were strikingly effective, and the method has now been extended to certain institutions in this country where it is being studied under controlled conditions. No doubt within the next few years its real value will become apparent.—Hygeia, June, 1923.

FEHLING'S TREATMENT OF DYSMENORRHEA AND STERILITY

Schmidt in *Monatsschrift für Geb. and Gynäkologie*, Berlin, Jan. 1923, says: that Fehling's treatment has given satisfaction for ten years in the Bonn women's clinic, but he can find no reference to it in modern textbooks. A fenestrated cannula, 5 cm. long, with flaring mouth, is introduced into the cervix, after curettement, and is left for three days. Then the cannula is changed, and the uterus cavity flushed with 1 liter of a 1 per cent. solution of liquor formaldehyde. The change of cannulas and the irrigation are repeated two or three times, with three day intervals. The woman must stay in bed for five days to allow oversight of the temperature. If it runs up, the cannula must be removed. Of his seventy-seven dysmenorrhea patients, 30 per cent. were entirely cured and 9 per cent. much improved; 17 per cent. were cured for a year or two, but 44 per cent. were not benefited. Conception followed in from one to eight months in 35.5 per cent. of the thirty-one cases of sterility.

AMERICA LEADS IN MEDICAL PROGRESS

"America now leads the world in scientific medical progress. Germany and the other European lands now have neither the instruments to 'carry on' nor have they the money with which to develop, manufacture or buy them."

Dr. Gustav Bucky, of Berlin, internationally known authority on the treatment of cancer and other deep seated diseases which have baffled medical science, said this at a dinner of the medical staff of the Mt. Sinai hospital at the Drake hotel, August 3.

The eminent German Roentologist is in America on a commission from the German government. It was stated at the dinner that efforts are under way to induce him to stay in Chicago to carry on some of his research and his cures with the X-ray.

"Some of the men who have come here from Germany," said Dr. Bucky, "have spoken with a 'big mouth.' They have told of their wonders and made false promises to the world. It is time to end that sort of thing.

"I want to say that I have found many wonders since I came to America. There has been great progress here. We'll have to work hard in Europe to catch up with you. Scientific progress now must be made in America. We haven't the money in Europe to work scientifically."

Dr. Bucky, according to the physicians present,

after sixteen years of research, has practically revolutionized the use of the X-ray in the treatment of diseases. He has developed the measurement of the rays and the use of "long, soft rays" instead of the "short, hard rays, in general use in America,"

He explained his healing powers with the X-ray, thus "The physician can't heal; the healing power is in the body. We physicians treat—the body heals. That is the secret of my work with the X-ray. The X-ray stops the functioning of the diseased cells and so works its cures."

THE PATHOLOGY OF DEMENTIA PRECOX

Our worthy contemporary the Medical Record some time back gave as the pathology of this disease the fact that it is usually characterized pathologically by neuroepithelial lesions of the brain. Macroscopical examinations, however, do not give constant results; occasionally a bilateral atrophy of the cerebral hemispheres is noted, but the atrophy may likewise involve only one side or it may be partial and limited to the frontal lobe. It has a predilection for the areas of association and respects those of projection to a great extent, occurring in them only in cases of long standing. The atrophic process is never accompanied by changes in the meninges or vascular system, and the pachymeningitis that has been encountered at autopsy of subjects who have lived to a certain age is the result of senescence. The atrophy of the cerebral or cerebellar hemispheres has nothing characteristic, as it is met with in the insane in general. Macroscopically, the cord appears normal in most cases, but there may be some anteroposterior flattening. The meninges are intact, while the cerebrospinal fluid offers nothing abnormal in aspect.

On the other hand, the microscopical lesions encountered are pathognomonic of dementia precox and are seated exclusively in the neuroepithelial tissue of the cerebral areas of association. The changes consist of a granulopigmentary degeneration with atrophy of the neuron, frequently with vacuolization of the protoplasm and destruction of its prolongations, dendrites, and axis-cylinders, all of which provoke cell autonomy and therefore are essential for the symptom dementia. The neuroglia proliferates in direct ratio to the atrophy of the neuron. In no case have lesions of the vessel walls (diapedesis, cell infiltration) been met with which could be attributed to the syndrome of dementia precox. Three types of lesion exist, namely, the preliminary lesions which are of congenital origin and most inconstant; the immediate lesions which occur at the phase of full development of the process, and lastly the consecutive lesions which mark the arrest of development of the neuron. The preliminary and consecutive lesions have only a relative importance from the viewpoint of pathology by reason of their origin. Etiologically and pathogenically they are of interest because on the one hand they reveal the influence of heredity while on

the other they indicate the time at which the psychosis may have developed.

Alone, the immediate lesions are important pathologically as they occur at the stage of full development of the morbid process and are constant and identical in themselves. It may be objected that they are not peculiar to dementia precox, but it is a remarkable fact that these lesions alone exist in this morbid process without any vasculoconnective tissue changes. An elective property of the pathogenic element for the neuron cannot be admitted, this element being essentially variable, and it is more logical to suppose that at the origin of the lesions of the brain in dementia precox there is a special vulnerability of the neuron manifesting itself by a lessened organic resistance (meionexia), ending in the bankruptcy of the nerve cell under the influence of some pathogenic factor whose action is not sufficiently intense to provoke a toxic-injection psychosis. The meionexia of the neuron may be due either to a neuropsychopathic heredity, especially cerebral, or to the action of some pathogenic factor arising during the previous existence of the patient. Therefore the lesions of dementia precox are changes having an accidental origin.

The influence of heredity is here reduced to its simplest expression. Heredity of toxic or infectious processes in the ascendant provokes degeneration and not dementia precox, which is a primary psychosis forming an entity and not a finale. If, on the other hand, this psychosis appears to end in a confusional state it is in reality a dementia precox with a dramatic clinical debut, clinical only because the initial stage of the disease already dates far back into the past, the first early symptoms having generally passed by unnoticed. Much has been said regarding the morbid agents which may give rise to this psychopathy, but it is probably logical to admit that the lesions of dementia precox are provoked by an autointoxication of sexual, gastrointestinal, hepatic, or other origin—in other words, an endogenous factor acting upon an organically enfeebled neuron.

Dr. Bayard Holmes, one of the greatest students of this disease, in commenting upon the pathology of dementia precox as given above says: that quite the most pronounced evidence that has appeared in the record or any conspicuous journal of the physical character of the disease is that it does not notice many quite as positive pathologic features, that further supports the non mental origin of this desperate condition is:

1. The concentration of the blood 5,500,000 red corpuscles.
2. The low blood pressure, less than 110 mm mercury.
3. The high intra spinal pressure, more than 150 mm of water (the patient on his left side.)
4. The index of brain weight to cranial contents is above normal.
5. The cecal stasis; the barium meal remaining

behind the ring of cannon more than 24 hours, and the tort and redundancy behind the ring.

6. The increased indolethylamine excretion and the increased betaimazoleth elamine excretion.

7. The adreolin paradoxes. The intra muscular injection of one half C C of P. D. & Co's 1-1000 solution of adrenolin does not raise the blood pressure as in the healthy 40 mm or more but actually depresses it. If a few drops of this solution is instilled into one conjunctival sack, the pupil is dilated or if over dilated already it is contracted.

8. The retina and pupil show many abnormalities. The pupils in active cases are dilated. The retina in severe cases shows atrophic spots with enlarged veins, and many minor disturbances.

Correspondence

CHRISTIAN SCIENCE

Chicago, Ill.

I am preparing a contribution, in book form, to a showing on Christian Science, dealing with the subject from the medical point of view.

Every physician has knowledge of cases wherein favorable results could reasonably have been expected to follow the timely use of proper medical or surgical treatment, but which, through reliance on Christian Science, resulted in serious injury to the patient.

The "story" of such cases, told by representative physicians in language that will be fully understood by lay readers, will appear in the forthcoming volume.

I shall be under great obligation to any members of the medical profession who will favor me with assistance in the matter.

There will be no undesirable publicity, as no names will be published. Your communication, doctor, will be held strictly confidential.

With appreciation of the favor I am asking,

I am cordially yours,

CHAS. E. HUMISTON, M. D.,

449 N. Central Ave.

DIDN'T HAVE THE MONEY

Returning from the dentist's where he had gone to have a tooth extracted, little Henry reported as follows:

"The doctor told me 'fore he began that if I cried or screamed it would cost me 75 cents, but if I was a good boy it would only be half a dollar."

"Did you scream?" his mother asked.

"How could I?" answered Henry. "You only gave me half a dollar."—Laffodontia.

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C. F. Baccus.....	Woodstock	W. E. Buxton.....	West Salem
C. M. Bumstead.....	Monticello	Edmond Bechtold.....	Belleville
W. F. Buckner.....	Watseka	W. H. Bell.....	Decatur
E. L. Brown.....	Bloomington	H. A. Beam.....	Moline
L. D. Barding.....	East Moline	R. W. Binney.....	Granite City
L. S. Brown.....	Hillsboro	A. P. Coleman.....	Canton
Wm. R. Bradley.....	Galesburg	I. H. Custer.....	Gillispie
C. Blim.....	Crete	H. M. Camp.....	Monmouth
Blim & Blim.....	Chicago Heights	John A. Colteaux.....	Roberts
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H. W. Bundy.....	Pesotum	E. W. Cannady.....	East St. Louis
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J. G. Barnhizer.....	Forrest	T. E. Conley.....	Park Ridge
S. M. Burdon.....	Lowpoint	E. F. Cox.....	Oglesby
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J. D. Byrne.....	Du Quoin	W. E. Carnahan.....	Adair
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E. E. Barbour.....	Peoria	A. L. Corcoran.....	Peoria
R. L. Benjamin.....	St. Anne	A. Milton Cox.....	Argo
Nathan Bulkley.....	Evanston	C. L. Carlton.....	Moline
N. L. Bourne.....	Decatur	J. E. Coleman.....	Canton
		S. R. Carter.....	Murphysboro
		G. H. M. Cottrel.....	Savanna
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Chas. E. Ericson.....	Quincy	D. Harwood.....	Janesville
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Franklin Turner.....	Arthur, Ill.		
E. P. Van Arsdale.....	Beardstown	The proposed campaign cannot be prosecuted without funds; it must be supported by popular subscription. It is hoped that every doctor will subscribe to this worthy cause. Serious disease diverted from the incompetent will result in the saving of thousands of lives and will prevent much permanent invalidism.	
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C. E. Williams.....	Danville		
R. R. Whiteside.....	Moline	For the convenience of those who have mislaid their letter of Appeal from the State Society, we hereby reproduce the pledge card:	
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O. D. Willstead.....	Chatsworth	Please sign and mail to the Illinois State Medical Society.	
J. W. Walton.....	Homer		
H. M. Wolfe.....	Taylorville	To the Officers of the Illinois State Medical Society and Members of the Council:	
A. W. Woods.....			
A. A. Wilson.....	Davis	"I am in accord with the proposed newspaper educational campaign in the press of Illinois, unanimously adopted by the House of Delegates of the State Society at the 1922 meeting and the plan recommended by the Council of the Society, and as evidence of my desire to co-operate with the Officers of the Council and of the State Society, I hereby enclose my check for \$. to aid in defraying the expenses thereof:	
W. C. Wood.....	Decatur		
J. W. Walton.....	Homer	MAKE CHECKS PAYABLE TO THE ILLINOIS STATE MEDICAL SOCIETY.	
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Original Articles

VENTRICULOGRAPHY* ITS PLACE IN BRAIN SURGERY

GEORGE L. DAVENPORT, M. D.,

CHICAGO

Ventriculography or cerebral pneumography is the replacement of the cerebrospinal fluid with air, in order to make the outlines of the ventricles and passage ways of this fluid distinctly visible on the Roentgen plate. To W. E. Dandy¹ is not only due the credit for the introduction of this procedure, but to a large extent, the clinical application thereof.

We have applied this procedure in 28 instances of intracranial lesions and feel there has been added to our armamentarium of already known methods of diagnosis another method of precision.

In the ventricular injection of air we enter the ventricle through a burr opening or the open fontanelle in the infant's skull, at Kocher's point of election on the right side, with the patient lying prone, neck flexed and looking towards the left, puncturing through the frontal lobe. The needle point enters the anterior horn or at its junction with the body of the lateral ventricle.

A record syringe with a two way petcock is then joined to the needle after removing the obturator, and the ventricular fluid is removed gradually, 5, 10 or 15 c.c. at a time and replacing same by air before the withdrawal or more fluid is begun. This is repeated until no more fluid can be withdrawn, when the needle is removed and the scalp sutured.

In order to secure good pictures it is necessary to at least empty the contents of one lateral ventricle or preferably more. Following the technique described above we have always succeeded in getting a satisfactory evacuation.

The procedure is carried out under local anesthesia and while the air is being injected the patient is watched continually and asked from time to time if he feels comfortable, because when the replacement of the fluid by air is done too rapidly there is occasionally noted a dizzy or faint feeling. After the injection of air has

been completed the head is kept slightly higher than the body level by placing a pillow under the head.

In two instances of ventricular injection of air we found the emptying of the ventricles was a "compulsory gradual emptying." These were cases of extensive gliomas involving the occipital and parietal lobes; there was interference with the ready flow of fluid from one ventricle into the one on the side that was being emptied due to a partial closure of the foramen of Monro as a result of displacement by the tumor or edema about this opening. Thus if this ventricle which was entered was very much smaller, one obtained a very small amount of fluid and due to the partial obstruction, drainage from the other ventricle was slow and emptying it took a considerable time.

The total quantity of fluid removed will help in gauging the size of the ventricles. The simple use of the diagnostic ventricular puncture and the obtaining of a large quantity of fluid which indicates dilated ventricles, may favor the diagnosis of a posterior lesion. In one instance we had a tumor of the frontal lobe displacing the ventricle on the tumor side, yet in this case the ventricles were dilated, furnishing over 60 c.c. of fluid. There was present either enough subarachnoid obstruction due to increased intracranial pressure preventing absorption of the fluid or there was a double lesion present, a frontal tumor with a lesion of the posterior fossa.

Routine Wassermann tests and microscopical examinations are carried out on all ventricular fluids removed, thus excluding the employment of spinal puncture, which is dangerous in cases of brain tumor especially if located in the posterior fossa.

The x-ray pictures should be taken soon after the air injection has been completed before a great deal of the air becomes absorbed or dispersed. This is imperative when only a small quantity of air could be introduced.

Four views are usually taken with the vertical ray, two laterals, an antero-posterior and a postero-anterior. In the lateral views the distance from the target to the plate is 66 cm., in the antero-posterior and postero-anterior the distance from the target to the plate is 61 cm., these distances are maintained in all our work so as to

*Read before the Illinois State Medical Society, May 16, 1923, Surgical Section, at Decatur, Illinois.

give us a relative exactness as to the size of the ventricles in each case.

In the lateral views with the sagittal plane parallel to the plate, right side of head down, the ventriculogram reveals a picture of the left lateral ventricle and vice versa. In the antero-posterior view the frontal region is nearest the target with the sagittal plane at right angles to the plate, ventriculograms reveal a picture of the anterior horns. In the postero-anterior view the occiput is nearest the target and the sagittal plane at right angles to the plate, the ventriculograms reveal a picture of the posterior and descending horns.

All plates should be carefully marked and the time of exposure is the same as for any head picture bearing in mind the fact that the skull of an infant is penetrated easier and the time of the exposure is much shorter than for the adult skull.

Townee² recommends the taking of four additional views of the fluid levels, using the horizontal ray. Two lateral views, one with the occiput up and another with the frontal region up, also two antero-posterior views first with the right side up and then the left. These additional pneumograms add information to our composite in arriving at a definite interpretation of the findings.

The intraspinal injection of air recommended by Dandy³ in addition to revealing all intracranial passages, may be of valuable service in early hypophyseal lesions. The technique is quite similar to the intraventricular injection of air always maintaining the head of the table elevated 15° until after the pictures are taken. This procedure is of special value in localization of the obstruction in the communicating types of hydrocephalus, but is contraindicated in cases of brain tumor located in the posterior fossa.

One should never arrive at a diagnosis from the x-ray findings alone, which point holds good for all laboratory methods of diagnosis. A correct diagnosis and localization of the intracranial lesions is based on a careful history, through examination and observation of the patient and last the interpretation of the x-ray findings following the ventricular or intraspinal injection of air.

The interpretation of the x-ray findings requires a complete knowledge of the technique of

the ventricular or intraspinal injection of air, position of the head, total quantity and difficulty with which the fluid was removed. The x-ray findings include such displacements of the ventricles which are brought about by tumors and cysts when allowance is also made for edema near a tumor or in remote areas; in cases of hydrocephalus a knowledge of the various areas and points of obstruction and lastly a careful opposite side comparison.

Indications for cerebral pneumography are:

1. In cases where a tumor could not be localized by other means.
2. In cases operated on and no tumor found.
3. In cases in which secondary manifestations were so pronounced as to completely overshadow the early clinical symptoms which results from a general pressure phenomena, displacement or edema.
4. As a corroborative procedure when it is necessary owing to the fact that the clinical history, the examination of the patient and observation had not been conclusive enough to aid in the localization of the tumor.
5. To gain information as to the size and extent of the tumor.
6. Cases of hydrocephalus in determining the site or region of the obstruction which caused this accumulation of fluid.
7. Localization of the origin of a tumor as in the case of brain tumor existing for some time suddenly developing typical Jacksonian epilepsy which may result from either extension, pressure, hemorrhage or edema, and yet the tumor may originate in the extreme frontal region, subcortical or post-parietal areas. This permits of the opening of the skull directly over the tumor rather than a wide opening over the motor region often far removed from the tumor.

We are all agreed that any diagnostic method of procedure should be made as safe as possible. Up to the present time we have utilized this method in 28 cases of intracranial lesions without a death that can be ascribed to the operation and only in four instances were there any untoward manifestations. In one case while the air was being injected the patient complained of dizziness, in the other three there occurred within an hour after the operation, slight pallor of the skin, dizziness, nausea and vomiting. The only treatment instituted was to keep the patient

warm and the head high, when these symptoms passed off in a short time.

It is possible that serious results can occur from hemorrhage into the ventricles, by air embolism, by a sudden reduction in the intracranial pressure, or by a sudden increase of the intracranial pressure thus causing an acute increase of the latter which might cause the rupture of a weakened stretched blood vessel or the sudden disturbance of a vital center in the brain.

Operative treatment when instituted confirmed the previous pneumographic findings. Of the 28 cases of cerebral pneumographies reported eleven were subsequently operated upon with nine deaths resulting from within a few hours to seven months thereafter. Thus in this small series of cases a mortality of 89% resulted.

The operative results must not be judged only by the remote results and their mortality but also should be taken into consideration that even a temporary result saves the patient exquisite suffering and blindness.

With the introduction and careful use of this procedure it seems only fair to assume that our selection of cases and end results in brain surgery cannot help but improve.

Dr. Davenport showed several slides of cases he had operated on to substantiate the points he had made.

1. Dandy, W. E.: Ventriculography following the Injection of Air into the Cerebral Ventricles. *Ann. Surg.*, 66:5; July, 1918.
2. Townee, E. B.: The Value of Ventriculography in Localization of Intracranial Lesions. *Arch. Surg.* 5:144; July, 1922.
3. Dandy, W. E.: Roentgenography of the Brain after Injection of Air into the Spinal Canal. *Ann. Surg.* October, 1919; p. 397.

NINE YEARS OF CLINICAL RESEARCH IN THE TRACHOMA PROBLEM*

EDW. E. EDMONDSON, M. D.

MT. VERNON, ILL.

More than nine years ago, at the solicitation of Dr. Oliver Tydings, I commenced the clinical study of trachoma, largely in Southern Illinois, to some extent in the Government Hospitals in Kentucky, and to a still less extent, in the largest clinics of the Rocky Mountains.

There was some suspicion in Dr. Tydings' mind that trachoma was in some manner a manifestation of tuberculosis and to a study of the relationship of these two serious diseases I addressed my attention by making such tests

for the presence of tuberculous lesions, such as Pirquet test, Calmette reaction, hypodermic reaction, and clinical history and physical findings, but to all these there seemed to be no case in which there was the slightest exacerbation of the trachomatous manifestations, hence it was necessary to report a verdict of "not guilty". The two diseases were often found in the same individual but so far as I can see they are not related except by mere accident. In making a motor tour through the Indian Reservations of the Rocky Mountain States I found that the soil is characteristically dusty and that there are numerous dust-storms at certain seasons which most certainly irritate the eyes of the Indians and this fact may have much to do in the etiology of the disease among the Indians. In southern Illinois there are periods of dusty and dry alternating with fogs and prolonged dampness.

Let us omit the history and geography of the disease and apply the effort of the present paper to a study of how the disease manifests and how its various stages and sequelae may be satisfactorily cared for by the oculist, who, by the way, is the only person to be entrusted with the treatment of so serious an affliction in any stage or any complication.

Trachoma appears as a deep red conjunctival suffusion associated with the presence of the typical granular extrusions of the same color which bleed freely on slight pressure, to be distinctly differentiated from follicular irritation due to house dust, street or road dust and the flying chalk of the school room and should never be confounded with the engorgement of the palpebral conjunctivae associated with errors of refraction frequently found in school children. There are several misleading batches of statistics submitted by pseudo-surveys recently made in this and some other States, one being a list of twenty-eight cases diagnosed by tyros as trachoma when a follow-up revealed that only two of these cases were even suspicious.

It is in this early stage of the disease that the embryo-oculist crowns himself with the discovery of hitherto unsuspected breeding places of trachoma, and frightens the teachers and parents into the belief that visual disaster is impending in that community.

The State of Illinois was unwittingly party to this character of ignorantly stigmatising many school children as trachomatous by a group of

*Read at the 73d Annual Meeting of the Illinois State Medical Society at Decatur May 16, 1923.

unqualified men and women making such a so-called survey only a few years ago in Southern Illinois.

There are certain institutions with the unsavory reputation for advertising "Cures for Granulated lids" using follow-up letters and pyrotechnic displays of heroic action in such cases of strain and dust irritation, with at times, some low grade conjunctival infection which are not much more charlatan in character than the bogus reports to the State through its University.

During 21 months service as oculist in Army duty, in recruiting inspections, in cantonment, and later as oculist for the largest Medical Advisory District in Illinois, I found many men discharged by S. C. D. and the specific disability stated as trachoma, when proper examination revealed not the slightest trace of the disease.

The etiology of trachoma is not completely proven, although much laboratory data has been done by Von Prowasek, K. Lindner, Morax and Ballak tending to the serious consideration of the "Free Initial Bodies" and "Inclusion Bodies" which when transplanted to the conjunctivae of monkeys produced typical trachomatous lesions whereas the inclusion bodies of epithelioid desquamativa, vernal catarrh and swine pest when transferred have not produced the lesions of trachoma.

These bodies are also found in ophthalmia-neonatorum non-gonorrhoea and in the vaginae of the mothers and the urethrae of the fathers.

The symptoms which call for relief are usually met in the following order: irritation of the eyes, photophobia, sensation of foreign body in the eyes, ulceration of cornea, pannus, entropion, superficial or deep scars of the cornea, trichiasis and distichiasis, ptosis, lag-ophthalmos, symblepharon and xerosis of the cornea.

The sensation of foreign body, photophobia and irritation are relieved by the use of mydriatics, grattage of the lids and the topical application of a five or ten per cent. dionin ointment.

The granulations may be removed by rasp and roller forceps followed by grattage and some emollient, or by grattage with a swab of boric powder and also in the hands of some the use of a needle to prick the granular bodies, all of course under the influence of local anodyne. The needle method has seemed to me a failure, having seen several cases so treated by good men in St. Louis, but the cases slowly grew worse and I

noticed the same progress of the disease as if the case had not been "needled" at all. The use of the rasp and expression has been attended with manifest success in all cases operated on in the extrusion stage of the disease, followed with a bichloride of mercury rub and the use of bland emollients. This also has the most direct effect in removal of pannus, of either the crass or tenuous type.

The cicatrices are best treated with dionin ointment or with thiosinamine ointment or a combination of both alternately every three or four days. These ointments can be started at five per cent. and after the eye no longer reacts satisfactorily with that strength, the use of ten per cent. can be substituted with advantage, and in many cases I have used as high as a twenty per cent. ointment to hasten the absorption of the exudate which nature had thrown out about the scar tissue and which the chemosis produced by the chemical will wash out, and it is gratifying to note how thoroughly some of the scar opacities will yield to the prolonged use of these ointments in many of the cases of trachoma.

The condition of ptosis and lag-ophthalmos is due partly to the thickening of the lids and partly to the shrinking of the conjunctival sacs with symblepharon and this whole group of symptoms belongs to the chronic stages of the disease.

Dionin and thiosinamine ointments have served me well in these sequelae, much better than the attempt to relieve them by carefully dissecting the adhesions from the lids or from the globe.

In the cases presenting xerosis of the cornea the same ointments have produced a succulence of the conjunctival sacs which by prolonged and patient use have relaxed the shrinkage and cleared the corneal dryness to a remarkable degree and in several cases still under my observation useful function of the eyes has been restored.

The operation for entropion of the lower lid consists of the classic one of doing a canthotomy and making a dual mattress suture from the cheek into the lower lid and retaining same till the scar tissue around the suture could be formed which would hold the lid everted.

The operation for entropion of the upper lid differs in what appears to many to be an important principle from the classic one.

No part of the lid is removed, an incision

parallel to and about three millimeters above the line of the lashes is made through to the tarsal plate, the upper flap is dissected upward to the upper border of the tarsal plate and the lower flap is also dissected down carefully to and around the lower edge of the tarsal plate and upward on the inner side of the same for one or two millimetres after which the lower flap is sutured to the upper edge of the tarsal plate with five sutures and the ends of the sutures are drawn up above the eye brow and held firmly with adhesive tape for a period of five days. The result of the operation is to form a new and more nearly normal relationship between the tarsal plate and the line of lashes which immediately after operation forces the lashes into a vertical position and after the sutures are removed will gradually allow the lashes to assume a more horizontal position but in the cases I have operated there has never been a recurrence of the entropion.

The simplicity of this technique is apparent over the one in which the v shaped incision is made in the tarsal plate to allow the plate to assume a more everted position at its lower edge.

Without this dissection of the lower flap in the manner indicated above the rest of the operation would be a failure, as evidenced by the attempt by some others I have seen in the southern part of this State.

My conclusions after nine years of work with this disease are that it is not a disease that will recede and leave the patient in a normal condition if the watchful waiting method is employed in its control.

It is a disease that requires active treatment of an intelligent character to prevent further damage to the visual organ and its appendages.

There is an indicated treatment in every stage of the disease and the disease can be arrested in any stage in which it reaches the experienced oculist, and further progress of the disease reflects either of the capability of the Doctor or on the fidelity of the patient.

Trachoma is a disease which should receive the intelligent co-operation of the people, medical fraternity, state and national government for its control and eradication.

In the past the people have been told that there is nothing that can be done for them in this matter and they have gone to quacks and advertising institutions which have wrung from them excessive fees for treatment and in a very

large percentage of cases have treated the simpler types of conjunctival inflammations under the guise of trachoma treatment to the commercial advantage of the charlatans and to the damage of the cases of real trachoma, until the real sufferers have felt the despair of Dante's mythical gate of "Leave all hope behind who enter here".

We should preach the gospel of cheerfulness to these sufferers and should be in a position to offer them actual help in this affliction or refer these cases to those who are able to arrest the disease in whatever stage it may now be, and to give the most intelligent care of the case for the restoration of such functions of the eye and its appendages as is possible with the present knowledge of the subject.

DISCUSSION

(Abstract.)

DR. J. S. JOHNSON, Cairo, found this a very interesting question, having had fifteen years experience practising medicine in a vicinity that has had a great deal of trachoma with all the complications that go with it, from the simple acute conditions to enucleations.

The geographical situation of the disease seems to have nothing to do with it as in Kentucky and southern Illinois where there are a great many cases, as in the coal mine regions of southern Indiana, the disease was brought in by the foreign laborers who are employed there.

In the public schools of Cairo we have discovered and treated more than three hundred cases of trachoma. There have been times when we have questioned whether they were all true trachoma. The three men treating it have questioned this but the cases had all the classical symptoms laid down in text-books. These cases were all treated by the method mentioned in the paper. Some of them recurred and were re-operated on. All the cases were followed up with after-treatment such as the Doctor mentioned,—some form of massage and drops into the conjunctival sac.

About a month ago we opened a children's clinic in Cairo and have found many of these children showing the symptoms of true trachoma, and some of the cases in which we had hesitated in deciding whether they were true trachoma or folliculitis. In Cairo there are some 3,000 white school children. In 1918 a few cases of trachoma were reported by the school nurse at the end of the year. At the end of 1919 sixty cases were reported and during 1920 there were 150 cases of the disease. Nothing had been done by the authorities to eliminate it, but at that time the health authorities got busy and began to eradicate the disease. That was a rapid increase from year to year of an infectious eye disease with all the clinical symptoms of trachoma. In the same town we have something like 1,000 colored school children but up to date

we have never found a case of this infection. We have been taught that the Negro race has an immunity to trachoma and he had never seen a case in a full blooded African, and but one or two cases in the mixed breeds.

DR. FRANK C. HAMNETT, Princeton, recently returned from China where he had observed trachoma in and about Peking. This is a disease that attacks the Chinese very largely. They have a clinic at the Rockefeller Foundation in Peking of 250 cases. Dr. Howard, who has the work in charge, has been trying to find why the disease is so prevalent, but when one remembers that for six months there is no moisture in that vicinity, with a strong wind all the time picking up the infected dust that is so prevalent in China and forcing one to use a handkerchief constantly to keep the dust out of the mouth and eyes, this will give you some idea of the reason for the great prevalence of trachoma in that country. They have tried the blue stone, silver nitrate stick and the light in the treatment of the disease but they now use the potassium permanganate and boric acid swab.

He acquired trachoma while in the northern part of China, went to the Rockefeller Hospital and Dr. Howard diagnosed a mild case of trachoma and he underwent the routine treatment. That treatment is not pleasant but probably is not so bad as the blue stone or silver nitrate. The swab is dipped into a solution of potassium permanganate, about 1:1000 solution, quite a dark solution, and then put into the boric acid powder, the eye being first cocaineized which requires about half an hour. Then the lower lid is rubbed, probably six times across and with a boring motion into both canthi, and then they lift the upper lid and place the swab underneath and get it up into the fold, rubbing as on the lower lid. They then put on an ice pack for half an hour and after that the patient puts on dark glasses, and may go out into the sunlight. In addition to this the patient used $\frac{1}{2}$ per cent zinc sulphate solution three or four times a day. This procedure gives relief an hour and a half to two hours after the treatment and the eyes finally get well.

There is a tremendous amount of disease in China but if one knows the Chinese it is easy to see why there is so much trachoma. They are very dirty and very little water is used, although there is plenty of it in the wells and rivers. One man came to his dispensary who had not had a bath in three years. They are also very likely to use towels or handkerchiefs to dust their shoes and then wipe their eyes with the same towel or kerchief. Not only do they have the trachomatous conditions there but many other eye conditions due to filth.

The treatments described are given three times a week, on alternate days and they are continued depending upon the state of the case. He was there for a month and received twelve or fifteen treatments but his case was not very severe.

Dr. C. F. Burkhardt, Effingham, thought there was probably no subject of more interest to eye men than

the subject of trachoma and its successful treatment. It is perhaps true, as Dr. Edmondson stated, that it is a disease which can be cured but if he knows of any method by which we can hold a patient sufficiently long in private practice to cure them he would be glad to hear it. He cannot get these patients to go into a hospital or even come in three times a week for treatment. He referred to a secret method used in a neighboring city said by patients to be extremely painful but the most of them return home apparently cured; and he believes that in these cases we are not using a sufficiently strong solution of nitrate of silver. He had sometimes made the mistake of getting hold of a 25 per cent solution and was greatly alarmed, but found better results in these cases than he got with the weaker solution.

DR. HARRY W. WOODRUFF, Joliet, stated that trachoma is not only a disease of the conjunctiva but it seems to attack the eye from the lid margin going up to the cul-de-sac, and then again to the limbus and cornea. This area from cul-de-sac to limbus seems to escape the trachoma except in the cases of atrophy, of course, where the entire conjunctiva may shrink. This is the location in which trachoma primarily does the most harm because of the fact that the tarsal plate is so intimately associated with the conjunctiva, and the disease after it exists for any length of time extends into the tarsal region so that you have an actual tarsitis, more marked near the ciliary border of the lid because the blood vessels run down from the circular artery of the lid and anastomose with the little vessels of the conjunctiva, and there we have the linear scar nearly always in trachoma, corresponding to the line of sulcus subtarsalis.

Removal of the tissue down to the border of the lid and removing the entire tarsus, except the lid border, results in great benefit to the cornea because of eliminating the rubbing of the tarsus on the cornea. The pannus and resulting ulcers disappear and the deformity of ptosis, which is due not to the disease of the conjunctiva but more especially to atrophy of the fibers of Müller's muscle so that it loses its power and the lid droops.

DR. ROBERT VON DER HEYDT, Chicago, commended Dr. Edmondson's medical treatment. It is the same as was introduced by Dr. Beard and followed up by Dr. Barr and himself at the Infirmary. They use bichlorid 1-500 for rubbing the conjunctiva, changing a passive to an active congestion, and also use it in atropine vaseline, 1-3000 for corneal complications.

He also commended the idea of breaking individual follicles with the knife needle instead of doing an expression in cases where there are but a few; it is less painful.

DR. EDWARD E. EDMONDSON, Mt. Vernon, Illinois (closing): I wish to thank the gentlemen for their discussion. As to the use of dionin, we do not use it for any length of time. It is a good lymphogogic but if it is used much it loses its effect. I do

not use it every day, but perhaps once a week or once in two weeks or once a month, but to cause a relaxation of the conjunctival sac and clear up the xerosis and produce absorption of the exudate around the superficial ulcers of the cornea and the scars there, there is nothing better in my hands than dionin in a small percentage. It causes a chemosis and washing out of the exudate but it looks as if the hornets had stung the lid. That is my experience of nine years. I use the ointment because I have seen men use a solution of the powder and in a short time it is all gone. I use the ointment because it takes longer to get it out of the eye and there is a more lasting effect.

The removal of the tarsal plate I think is good surgery. The cases that come after the disease is of twenty-five or thirty years duration and the patients are practically blind because of the scars frequently will not submit to surgical operation and we sometimes have to do the next best thing. It is true that the tarsectomy gives excellent results in many cases.

I appreciate very much all the light on the subject of trachoma for I am working on this matter in real earnest.

THE VALUE OF THE X-RAY REPORT AS A LIAISON BETWEEN THE ROENT- GENOLOGIST AND THE REFER- RING PHYSICIAN*

EDW. S. BLAINE, M. D.

Roentgenologist, National Pathological Laboratory; Consulting Roentgenologist, Cook County Hospital; Associate Professor of Roentgenology, Northwestern University Medical School.

CHICAGO

The purpose of any x-ray examination, observation or study is to aid the referring physician or surgeon in arriving at a diagnosis in such of his cases as may be proper subjects for roentgenological investigation. The x-ray viewpoint in a given case is but one phase of a complete study of a patient and does not constitute the diagnosis of the patient's condition. In only a few exceptional cases can the x-ray findings be properly considered as "pathognomonic" of a particular lesion, regardless of the clinical and other evidence and therefore in such instances is conclusive in establishing the final diagnosis. This, however, is of such infrequent occurrence that the careful physician should be very reluctant in accepting such x-ray findings as a final or conclusive diagnosis if it has little or no clinical support. The x-ray report should be considered an aid to the diagnostic end and not the final diagnosis itself. (Incidentally the term "x-ray

diagnosis" is really a misnomer and its use should be discouraged in every day practice.)

The value of an x-ray examination lies in the manner in which the maximum information obtainable from the x-ray shadows, resultant on proper exposure and development technique, is delivered to the physician interested. This transfer of information is made in the formal x-ray report and, therefore, this report is literally the "liaison" between the roentgenologist and the referring physician or surgeon. The x-ray report is a statement of the roentgenological aspects of a given case and preferably should be typewritten over the signature of the roentgenologist who makes and who is responsible for the interpretation. There should be no debate on the proposition that the roentgenologist necessarily must be a graduate in medicine, properly qualified in the x-ray specialty. It is a sad commentary on the action of some physicians and surgeons who still refer their patients to lay x-ray operators and who rely on x-ray reports made by non-medically trained individuals for assistance in the handling of their patients. The day is approaching when the roentgenologist will no longer be rated on the photographic beauty of his x-ray films but on his skill in evaluating the x-ray shadows in terms of normal tissues or of pathological lesions, as well as his ability to transfer the diagnostic significances of these shadows to the referring physician via the x-ray report. Correctly speaking the patient's fee is for the *x-ray report* and not for *x-ray pictures* per se, the films being but the evidence on which the report is based and these films occupy a similar position as does the x-ray machine, x-ray tube, etc., and in like manner as does the stethoscope, the microscope and similar diagnostic aids used by the physician. The operative findings and post-mortem revelations are the proper methods of checking up on the skill and accuracy of the roentgenologist and should not be based on the attractiveness of his x-ray "pictures" as is so often the case.

A prominent pathologist who is performing a considerable number of necropsies has expressed his interest in the fact that between the clinical conclusions by the ward physicians and the x-ray findings given by the roentgenologist, the x-ray reports were found to be the more often correct and the roentgenologist more frequently made an accurate estimation of the actual pathology

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which he (the pathologist) found to be present.

A good x-ray report will so describe the abnormal shadows in degree, location and extent that a mental picture of the x-ray plates will be obtained which can be translated into pathological changes and which can be diagrammed on paper and a comparison of the resulting sketch with the film shadows will reveal the same information in terms of gross alterations or departures from normal. The report must not be too voluminous and yet not so brief as to sacrifice any essential information. If the shadows be analyzed on the premises hereinafter set forth, the report will have exactly the same value in New York and San Francisco as it has in Chicago or anywhere. This method of reporting reduces the necessity of the referring physicians having to "see the x-ray films" for themselves, now a rather prevalent custom, due largely to the lack of proper standards of x-ray reporting.

The x-ray report, being primarily for the referring physician or surgeon, may be considered from two different angles, namely:

First, reports for the doctor who is himself skilled in x-ray interpretation but does not use x-ray apparatus, and

Second, reports for the doctor who does not know the x-ray shadow values in terms of pathology.

From a practical standpoint, an x-ray report which fills the requirements of both first and second situations (a combined report, as it were) is logical. Thus the shadow variations on which the diagnostic conclusions are based are detailed and described in the report, and, in addition, the roentgenological indications are given as a résumé. If the objective shadow findings do not interest the physician he can easily disregard the first part of the report and consider only the x-ray conclusions. If, on the other hand, he does not care for the roentgenologist's opinion as to the diagnostic significance of the shadows, he may concern himself only with the objective shadow findings.

Under the first mentioned viewpoint the process of x-ray reporting is merely a technical one and consists of a word picture of the gross appearances of the shadows normal and abnormal. The careful diagnostician will make for his files a detailed report or analysis of the objective x-ray shadow features normal and ab-

normal just as he does the other clinical features of his case.

In order to be able to recognize x-ray shadow variations there is required *a priori* an accurate knowledge of the relative densities of normal and diseased tissues as well as the x-ray manifestations of such normal and diseased tissues. From a careful description of the shadow features normal and abnormal which are detailed in the x-ray report, the referring physician, possessed of x-ray training in shadow analysis, should be able to make a proper deduction as to the pathological indications of the shadows described in the report.

Under the second viewpoint an *x-ray consultation* takes place in like manner as occurs in a bedside consultation except that the patient goes to the roentgenologist instead of the doctor going to the patient. The conclusions are based on the x-ray shadows and these are given in the written report which is sent or given to the referring physician. In the strictest sense this does not call for a description of the shadow changes themselves, but only the pathological or non-pathological indications. However, for reasons already stated a combined report has by far the greatest possible value as a consultation. All x-ray reports cover either traumatic or non-traumatic cases.

Preliminary Details. A good x-ray report regardless of the lesion will contain the following items of information concerning the technique used on which depends, in considerable measure, the value of the examination:

1. a) The exact anatomical regions included in the x-ray exposures, giving the limits in terms of anatomy.

- b) Whether right or left, or both.

2. a) The projection directions of x-ray made in the examination, e. g., AP—PA—lateral, etc.

- b) The posture of the patient, e. g., supine, prone, right lateral, etc.

- c) Number of exposures made.

- d) The number of films used.

- e) The size of the films.

3. a) Whether the shadows of the bones correspond with the age, weight, height and sex of a normal individual of like age, etc.

- b) Main shadow features which bear directly upon establishing the lesion suspected by the referring physician.

c) Secondary or additional changes observed.

4th. A specific statement as to the normal portions included in the examination.

The report must be specific on each point and should leave nothing to be taken for granted or assumed as unimportant. Often the shadows of apparently the least significance proves to be the most valuable.

Injuries. If the case in question be one of trauma, the following points are to be specified in detail in the x-ray report:

a) Type of injury, such as fracture, dislocation, subluxation, periosteal tearing, etc.

b) Name of bone involved, (e.g. humerus, fibula, etc.)

c) Location of injury (e.g. "at junction of middle and lower third").

d) Kind of fracture, (e.g. transverse, spiral, comminuted, etc.)

e) Extent of fracture in centimeters (or inches) of length of bone.

f) Direction of line of fracture (e.g. "from external aspect, downward and inward") (always beginning from proximal to distal).

g) Position of distal fragment with relation to the proximal one.

h) Amount of end to end opposition in percentage, (e.g. 100%=complete, 50%=half and half).

i) Amount of over-riding, (i.e. shortening, preferably stated in centimeters).

j) Angulation of fragments (if any) in degrees off 180°. Thus, "10° inward angulation", "25° forward angulation", etc.

k) Whether the injury extends into the neighboring joint or not.

l) Whether shadows indicate old or recent bone injury.

m) Presence and approximate amount of callous shadow, if present; absence of same should be so stated.

n) Whether there is indication of infection of periosteal, articular surface or underlying cancellous or cortical bone tissue.

o) If metallic fragments indicate a projectile injury,

p) Together with any additional features such as evidences of bone atrophy, arterio-sclerosis, soft tissue alterations, myositis ossificans, etc.

Diseases. An x-ray report of bone or joint pathology will cover the following points:

a) The anatomical regions (right or left or both) included in the exposures.

b) Whether the shadows of the anatomical structures coincide with the age, weight, build and sex of patient.

c) The parts which are represented by shadows of normal anatomy.

d) The parts which are involved in abnormal changes.

e) Whether change present is epiphyseal or diaphyseal, or both.

f) Whether there is bone increase or decrease, or both.

g) Whether same is one or more or on all sides of the bone.

h) Whether the changes are in the cortex or medulla, or both.

i) Whether change is periosteal only or combined with underlying bone change.

j) Whether a small and localized or a large diffuse extensive involvement is indicated.

k) The roentgenological conclusions or indications stated in order or probabilities unless the x-ray evidence be pathognomic or conclusive or if a preponderance of evidence indicates a particular lesion to the exclusion of all other diseases.

THORAX

An x-ray report of a study of the thorax will include pulmonary, pleural, cardiac and aortic shadows as seen by fluoroscopic screen and stereoscopic or plain film as the case may be. The report will state the number and size of films used as well as note the position of the patient in the preliminary portion of the report. This statement of technic used is of prime importance as it signifies just what the findings are based upon which must be consistent with the known possibilities of such examinations.

In analysing the shadows of the thorax the following order is logical:

Pulmonary. The lung fields are preferably divided into the following areas for convenience in reporting:

a) apices, 1st, 2nd, 3rd, 4th, etc. interspaces, anterior and posterior, right and left.

b) upper, middle and lower third, right and left.

c) costophrenic angles, right and left.

d) cardiophrenic angles, right and left.

e) peripheral, intermediate and hilum regions, right and left.

These divisions will permit an accurate description of any unusual shadows in any portion of the lung fields and thus enable a proper evaluation of their significance.

Shadow increases (or decreases) from average normal for the same size, age, weight, sex of the individual examined will be stated and located. The condition of the apices as to lighting, the activity of the diaphragms, the excursion of each as compared with the other, the movement of the lateral chest walls on deep respiratory action will all appear on a proper x-ray report. The extent and degree of shadow change will enable the referring physician to better appreciate the actual condition of his patient, if these be properly expressed in the report. This objective shadow description will be followed by a resume in which the probable pathological significances will be given.

Pleural. Next in order to report is the condition of pleural areas, as to increased shadows indicating thickening, effusion, adhesions, etc., decreased shadows indicating emphysema, cavitation, etc. The pleural regions are conveniently divided into costal and diaphragmatic borders, costo- and cardio-phrenic angles, right and left, all of which should be specifically referred to as being normal or abnormal as the case may be. The pathological significance of any abnormal shadows will be stated if they be characteristic of certain lesions.

Cardiac and Aortic. The heart shadow is found to be normal or abnormal for the age, weight, build and sex of the particular individual examined. If the heart area is increased or decreased in size, the report will state the approximate percentage of such increase or decrease. If the configuration be abnormal the variation will be stated in terms as elongated, rounded, drop shape, asthenic or sthenic, etc. If suggestive of a valvular lesion the particular type will be stated, such as aortic regurgitation, mitral insufficiency or other condition indicated. If the outline be such as to be inconclusive, this fact will be stated. If the cardiac shadow be displaced, the degree of shifting and direction of same will be described as this is an important item from a diagnostic standpoint. The aortic shadow will be described as normal or abnormal as the case may be. Increase or

decrease in size and shape is very important as a detail and must not be omitted. If there be shadow indication of aneurism this will be stated and the type of aneurism will be specified, such as sacculated, cylindrical or fusiform and the report will detail the location of such increases in diameter. Displacements of the aorta are also to be a part of the record as well as notations of calcified vessel walls if present.

ALIMENTARY TRACT

The x-ray report of a study of the alimentary tract (or any portion of same) will state whether it includes one or more fluoroscopic observations and how many and what size serial films were made in order that the foundation of the report can be established. The report should state the technic as to various postures of patient.

Gall Bladder. The careful roentgenologist will make a preliminary series of exposures of the gall bladder region and his report will state whether or not there were found any ring-like shadows which indicate the presence of gall stones, also being careful to state that the absence of such shadows does not rule out a cholelithiasis.

Esophagus. The x-ray report of an examination of the esophagus should specifically state whether the swallowing of the opaque test material revealed normal or abnormal shadows on fluoroscopic observation. If found to be normal a specific statement to this effect is essential; if abnormal shadows were seen, the report will describe the alteration noted, increases or decreases of diameter being important information; if a narrow lumen is seen, the character, (smooth or ragged) and degree of the obstruction, location of same, whether in the upper, middle or lower thirds of its length will be described and the shadow indications as to whether diverticulum, spasm, benignity or malignancy or other lesion is evident will be noted in the report.

Gastric. The x-ray report of an examination of the stomach will state the fluoroscopic and film findings as to its a) size, whether small, medium, large or very large, b) its shape, such as vertical-fishhook, transverse-cow-horn or other suitable descriptive term and c) its position, whether high, normal or low in abdomen, d) its peristaltic wave characteristic in terms of vigorous, weak, regular or irregular and its motility,

noting its clearance at from four to six hour observations, e) the size of opaque residue, if any, whether small or large will be stated. A statement of the presence of a filling defect, whether this be an increase or a decrease from normal contour, and whether such increase or decrease be smooth or ragged, its location as to being in cardiac, median or pyloric portions and the extent of such increase or decrease are all necessary items for the report. If there be any evidence of the passage of the opaque material through a gastroenterostomy it should be specifically stated in the report.

Duodenum. Inasmuch as the histological makeup of the first portion of the duodenum (the bulbus duodeni) is quite similar to that of the pyloric end of the stomach, the report may properly group these together. The report of the shadow findings in the bulb or cap will include similar items as given in the preceding and, whenever possible, points of interest in the remaining or villous portions (second, third and fourth) of the duodenum will be described. If normal, it should be so stated. If pain or tenderness on palpation under fluoroscopic control be elicited, the relation of this pain point to the pylorus, gall bladder, etc. should be stated to aid the referring physician.

Jejunum and Ileum. In jejunum and ileum, the important items to be included in the report are the indications of obstruction, diverticuli and stasis as well as evidences of extrinsic displacement and congenital variations. If normal features are evident, this should be stated as being normal. In the event that the appendix be visualized, the character of its filling, position and whether fixed or tender will be described, all of which should be a part of a truly valuable x-ray report.

Colon. At eighteen to twenty-four hours after an opaque test meal, the colon will be more or less filled. The x-ray report will describe the manner of filling, the condition of haustral markings, position of the various portions as to being normal or abnormal, ptosed, etc. The presence of fixation or immovability of the cecum under fluoroscopic manipulation, any tenderness or pain over the appendix, and x-ray indications as to the probability of appendiceal disease will be included in the detailed findings. If the colon be studied alone (by clysmas) the report will so state and the number of films, size of

same, posture of patient, direction of x-ray, will be given. The manner of inflow of the opaque enema is carefully noted in the description of findings. Note will be made of ileocecal valve competency or incompetency. The presence of diverticuli (best demonstrated at 48 to 54 hours post cecum) indications of spasticity of the colon, evidences of spastic, ulcerative or mucous colitis, intrinsic obstructions, filling defects, whether smooth or ragged, the presence of a redundancy of any portion of colon and the displacements by extrinsic lesions and the condition of the shadow of the rectum are all to be specified if the report is to have greatest diagnostic value. The findings of observations made from 24 to 72 hours will be given in properly noted paragraphs. A resume giving the probable pathological indications of the x-ray findings will complete the report.

URINARY TRACT

An x-ray report of an examination of the urinary tract will be prefaced by a statement as to the details of technic such as number and size of plates, areas included, whether stereoscopic or plain, whether moving (Potter) grid was used and posture of patient. The referring physician or urologist will thus know how thoroughly the technical work was performed and will have confidence in the report accordingly.

Renal. The report will describe in detail the shadow appearances of the right kidney and the left kidney as to whether the outlines of such organs are visualized or not visualized, the size, shape and position of each, whether or not any unusual shadows are found to be intrinsic or extrinsic and the probable pathological significance of such shadows, as for example renal calculus, tuberculous calcifications, tumor, etc.

Ureteral. Next in order to report are the ureteral areas which can be divided into upper, middle and lower thirds, stating the presence or absence of unusual shadows. A description of the size (in centimeters if possible) the shape and the position of the shadows will be made, stating their probable significance.

Bladder. The bladder region is to be similarly analysed and described in detail, noting also the presence, if any, of phlebolith shadows, arterial calcifications, etc., describing the size and position as nearly exact as possible. This will be followed by a statement as to the shadow features of the bones and joints of the spine

and pelvis, noting any evidences of spinal arthritis, congenital variations or other departures from normal and the probable significance in terms of pathology.

Opaque Injection. After the preliminary statement as to technique used the report will note the name of the cystoscopist who performed the uretral catheterization and opaque injection. The report will describe as in the preceding, the various shadow features normal and abnormal together with the amount and kind of opaque material injected into each kidney (given by the cystoscopist), the shape and size of area of the renal pelvic shadow. The probable pathological significance of each pyleogram will be stated if abnormal; if normal in appearance this will be so stated. The shadows of the opaque material in the ureters, right and left, will be described as to whether normal or abnormal in size, course and appearance, giving the probable pathology as seen from the x-ray viewpoint.

SINUSES.

An x-ray report of an examination of the nasal accessory sinuses will state the number and size of films exposed, the positions of the head and direction of the x-ray beam. The shadows of the several sinuses will be described in order as follows: frontal, ethmoid, maxillary and sphenoid. A description of the frontal cells will note the size, shape and symmetry or asymmetry of outline, congenital absence of one or both sinuses, the presence or absence of clouding of one as compared with the other or with normal transparencies stating the probable significance of any unusual shadows. If normal in appearance this will be stated. The right and left ethmoid transparencies are described in terms of normal or abnormal conditions and are so noted. The antra are similarly considered and described in minute detail in the report. Shadows indicating the presence of products of infection, polypi, mucocoeles, etc. are detailed specifically as to whether diffuse as in fluid (pus) or are sharply bordered with rounded upper or lower edges as in tumor, and comparisons are made of one side with like area on the other side as to degree of x-ray transparencies. The sphenoids are described as to size, shape and symmetry, note being made of septal deflections, etc. and indications of pathology detailed.

MASTOIDS.

The mastoids are treated in like manner as already noted as to preliminary notation of films, positions, etc. The shadow evidences of the character of the cellular arrangement, their extent into the squamous portions of temporal bone, relations of the cells to the lateral (venous) sinuses and specific notations will be made and details given as to whether the mastoid cells are of normal or abnormal appearances, describing in what way they are not normal, such as hazy, fuzzy, poor detail of intercellular walls, loss of normal pneumatic content, etc. The indications as to the probable pathology present is then noted. It is only from such a detailed report that the sinus specialist will obtain maximum assistance in the consideration of his cases and his confidence in the x-ray is increased by this method of reporting.

SKULL.

An x-ray report of a study of the head will describe, in addition to the necessary notations as to size, number of films, whether plain or stereoscopic and the several directions of x-ray projections, posture of patient, the x-ray shadow features normal and abnormal. The analysis should describe first cranial vault noting the shadow appearances of the inner and outer tables, increases or decreases in thickness, local or general alterations, peculiarities of shape if any, blood vessel markings, condition of sutures, whether indications of intracranial pressure are present, lines of fractures, the kind and extent, if any, tumors or other abnormality. Then should follow the base shadows which will be described, noting the conditions of anterior, middle and posterior fossae as to whether normal or abnormal features are present. The size, shape and appearance of the sella turcica will be stated together with the probable pathological significance of any variations discovered. The shadow appearances of the mastoid cells whether normal or abnormal will also be noted. If the pineal body be calcified this will be clearly seen and should also be a part of the report even though the significance of such calcification is not known. Obviously any shadows indicative of intracranial pressure (digitation) will also be

detailed; notations as to the shadow appearances of the bones of the face, jaws, and teeth will be made whether normal or abnormal as well as the upper cervical spine, in so far as these vertebrae are included on the films.

SUMMARY

The value of any x-ray report depends entirely upon how well it transfers to the referring physician all the information contained on the films. How well this is done depends upon the ability, experience and skill of the roentgenologist in x-ray shadow analysis or dissection as it were.

Systematic reporting a findings as detailed in this presentation is the exception and not the rule and when such thorough analysis is generally adopted by roentgenologists the value of the x-ray as an aid in diagnosis will be greatly enhanced and will rise higher in the estimation of the medical profession.

When the system of x-ray reporting here presented is adopted the loss of the x-ray films will not be the serious matter that it now is. Destroyed x-ray plates or films can never be replaced but if the report or a duplicate of it be filed, as it should be, in the records of the x-ray department, the need for the films for reference in following the progress of a given case, in research studies, in medico-legal cases, etc. will be reduced to a minimum.

Having such detailed descriptive reports will also reduce the desire of the referring physician or surgeon to see the films for himself. If the report gives all the available information, viewing the films will not add anything and the physician will not need to see them. The practice of "seeing the x-ray pictures" reflects the fact that x-ray reports as now made do not convey to the referring physician the x-ray findings which is partly the basis of this essay.

The lack of uniformity in x-ray reports, many of which are meaningless or inadequate, has been recognized by careful observers and attempts are being made to bring about a more satisfactory manner of reporting x-ray findings. It is on this score that this paper is offered as a contribution toward that goal of standardization of x-ray reporting so much desired by all concerned.

LEGISLATURE MATTERS*

JOHN R. NEAL, M. D.

SPRINGFIELD, ILL.

I have a statement to make tonight, which also will be a report that is predicated upon what may come and not what has been. I don't want to inflict anything on you that I may repeat this evening—one or two points may be of interest.

Our position is a most peculiar one in Springfield in that we do not have the personal contact with our own profession, so to speak, as we do with the legislators, due naturally to the geographic position, so we must carry on through the mail and through every possible avenue to get to you gentlemen, so that you may interview the legislators of your district. My position, and the position of your legislative committee is merely relative—we are the liaison between the Illinois State Medical Society and the Legislature. We attempt to keep you informed as to what is going on and we believe the battle is won not in Springfield but back home, and just from hearing these gentlemen talk I could almost visualize to you, if I had the time, exactly which districts are responding and which are not. I am not prepared to bring any particular condemnation upon any specific county society because there has been no vote of record on our legislative programme as yet. The battles have been committee battles, one or two little measures that have gotten out and rambled on the floor of the Senate and the House which only shows how easily it is to get something passed which has no opposition from any source such as the Chiropractors' Bill.

Early in the legislative year we attempt to get a mailing list of the members interested in legislative matters, we have to revise it almost every week, and in that way attempt to get a legislative committeeman in every county. We have a mailing list of 250 to 300 and send a printed bulletin out as often as changes in the situation warrant. Sometimes we do not dare send out a bulletin because before it can reach you the aspect has changed entirely. In obtaining our original list of committeemen that desire to co-operate with your legislative committee,

*Extemporaneous speech given before the Secretaries' Conference, Illinois State Medical Society, Decatur, May 15, 1923.

we send out a questionnaire regarding the legislators and as a result we have each senator and representative tabulated in our office, and we have quite a little history about him. Sometimes I show one of the gentlemen his record thus obtained and he oftentimes compliments me on the ability of my detectives; we have their church affiliation, their standing in the community, etc. We have a map on which every legislator is designated; if he is right on medical matters he gets a blue tack, if he is a bolshevik he gets a red tack; those we do not know about, that is the greater majority, I regret to say, get a yellow tack. If I were a representative or a senator I wouldn't care to have you come to me and ask me to vote for a Bill that I have never seen and have no knowledge of its purpose. Committees analyze and amend these Bills, there is an amending session over there, there are a few over 1,200 bills introduced so far this year and just 31 have become laws. It is what they call a "Kill 'em" legislature. You can amend the multiplication table and get by with it.

A few weeks ago there was a Chiropodists' Bill started out to raise their requirements to four years high school and two years professional school. The second paragraph contained a great many things they proposed to teach. We did not pay much attention to it. It quickly passed the Senate because there was no opposition. That measure is now pending in the House. Naturally we got busy to see what they really meant by teaching Neurology and everything the medical man takes and saying they did not intend to practice it; but they covered it up by saying that they were only to take such an examination as was only necessary to be used in Chiropody. We found out that there were two factions; one was the better grade of Chiropodists, the other fellows were whatever they might be. We amended that Bill. We compromised by changing two words and raising two years high school to four years and one year professional education to two years, and threw the obnoxious second and third paragraph out of the Bill.

If we do not have an organized effort against pernicious bills of this sort many measures would at least get up as far as the Governor, then we would have to get busy and petition the Governor and it would be problematical as to whether or

not he would veto the Bill. As it stood, nothing would prevent the man from giving a local anesthetic and taking a bone out of the foot—he wasn't going to do it, he says, but it is unnecessary to have laws of that sort; the danger is paramount.

We just had another instance a few days ago, inasmuch as a certain group of Homeopaths are making a pernicious lobby for a separate Board of Examiners. I did not want to inject that thought into this discussion, because I know there are many good Homeopaths, excellent members of this society, but I would say you had better look to your own skirts and see that your good name is not being sacrificed by an off-shoot of some brand of men who think they are not getting a square deal some place. We looked up the reason for this request of a separate Homeopathic board. A telegram came down from Chicago, a certain Senator wanted to know how many had been licensed as medical men, how many as homeopathists, etc. The Department of Registration and Education has licensed all told about 35,000 medical men of whom about 1,400 are homeopaths and 800 are drugless practitioners.

You are reminded of the proportion of drugless healers when you see the pernicious lobby of Chiropractors—and I speak of them as symbolic of the non-medical practitioner because the Osteopaths do study the human body and the Chiropractors do not. The Chiropractors make more noise down there with their less than 700 or 800. At a committee meeting when House Bill 242, our Medical Practice Act, was being considered, one of the Chiropractors said there were about 800 in the State. It reminds you of the fellow that was going to bring in a thousand frog legs, but he had misjudged their number by their noise, and instead of a great many as he supposed, there were only 12 or 14; so with the Chiropractors.

We will discuss at length this evening the pending Bills that are now before the legislature, that is the new Senate and the new House Bill. We will go at length into those two measures, and attempt if possible to have you decide as to which one is the most acceptable. We are trying to get them both as nearly together as possible, so there will not be many changes. We are very optimistic as to having this law passed.

The State House people are today taking all their time on the Veto Bill, and on the Hundred Million Bond Issue, and they will not get to many of these 1,200 bills pending this session. Dr. Nelson spoke about a lobby. I have always disagreed that we should have a big lobby in Springfield. I do not think the average legislator likes to be pan-handled for his vote. Up in Elgin they will do more good than if all the doctors of Elgin came down and sat in those seats and every time a representative got up from his chair he would be pounced upon.

The place to talk is back home. The Shepard-Towner lobby has brought out hundreds of people, but if I am any judge, I am quite certain that that does not win a single vote; if it can not be done back home it can not be done at Springfield, and while we welcome, yes, invite everybody who has time and inclination for helping us, I always decry the idea that the Illinois State Medical Society should send a hundred doctors down there away from their business, to attempt to get any particular piece of legislation furthered. It is only a question of what we do back home, for two legislators have recently told me—and they are both good friends of the medical profession—"The doctors don't vote." After all, a politician is after the votes, and there are some things done thoughtlessly that hurt our cause. For instance, a prominent man of this Society went to his local senator prior to any of these Bills being introduced and said, "Are you going to vote for the Medical Practice Bill?" He said he would give it every consideration. The doctor then replied, "Are you going to vote for it?" He said, "I don't like to vote for anything I haven't read." The doctor said, "If you don't vote for it we will get you at the next election." That is not good politics.

I saw a letter the other day which said to a legislator, "We demand you vote for the Shepard-Towner Bill." He copied the letter, he happened to be a luke-warm senator, and passed them out to his associates. If one of our letters could get as much publicity on the floor of the Senate as that letter we would have smooth sailing. Coercion is not to be depended upon. You must see the Senator back home, and arrange for a personal interview, also get ministers, lawyers, etc., interested in this fight, regarding the educa-

tional requirements for those who attempt to practice the healing art or our efforts may be in vain; we can not do it by showing a big lobby or by coercion or sitting down in our seats and listening to the officers of your society read an occasional paper on legislature matters of medical interest and then letting George do it. If we can take a half hour in a week at this particular time to see our legislators and in that way let them know our eye is on Springfield, we believe we will get along much better and have a Medical Practice Act that will adequately protect the lives of the sick in the State of Illinois.

CHRONIC MALARIA—SOME CLINICAL ASPECTS*

LOUIS J. PETRITZ, M. D.

ROCKFORD, ILL.

There has been apparent in Illinois during the past several years a gratifying increase of interest in malaria. As a disease it has always been of interest, particularly in the southern counties, in the so-called "Malaria Belt of Illinois," but there has arisen a larger, more constructive interest, a realization of its public health and economic import, and with this the practical objective of eliminating the disease from the state. Our present knowledge makes this wholly possible. Eventually public enlightenment will insist upon its being accomplished. It seems to me that my topic "Chronic Malaria" has an important and direct bearing on one method of reduction—a method in which the physician is the chief factor.

We are all more or less familiar with acute malaria, latent and masked malaria, and possibly malarial cachexia. To many the term malaria evokes a mental picture of the acute stage only, namely, periodic chills, fever and sweating. This concept is fostered by almost all treatises on the subject devoted as they are to considerations of the many aspects of the acute paroxysms. A scant paragraph or page dismisses the most important subject of chronic malaria. Indeed, malaria is described as an acute disease, when it is essentially chronic, a characteristic of most of the protozoal infections. It is ushered in, as a rule, by an acute attack of varying severity and duration, but the vast majority of cases un-

*Read before Section on Medicine, Illinois State Medical Society, Decatur, May 16, 1923.

treated or inadequately treated go on to a stage of chronic infection which comprises the greatest part of the course of the disease. Chronic malaria may be due not merely to the persistence of the original infection, but to repeated new infections without resulting in acute attacks. The acute phases are strikingly manifest, yet the unostentatious chronic stage is the preponderant cause of health, social and economic losses. As Stitt says, "The great importance of malaria is rather its invaliding tendency and by thus reducing the powers of resistance it makes the death rate from intercurrent diseases higher." The more important economic and social ravages are apparent to all familiar with this malady.

Occurrence.—Nearly all authorities agree that from 40 to 60 per cent or more of acute attacks represent relapses of chronic infections. Just what does this mean in Illinois? Nauss, of the State Department of Public Health, estimates there are from 22,000 to 34,000 cases a year in this state. This means from 15,000 to 25,000 chronic cases. I would give an even higher percentage. I may safely say that but few of the chronic cases are recognized or treated.

Chronic Malaria in Relation to Control.—It is generally accepted that the preferred methods of control are by measures directed to elimination of mosquito breeding, that is, drainage, oiling, etc. The extension of such control is slow, and follows only when economic benefits are demonstrated. An immediately applicable method of reduction is the elimination of the source of new infections, the human reservoir—chronic infections. To Bass must be attributed the ardent exposition of this method of reduction, which, it appears to me, is of even greater value in northern localities than in the South. The winters are of sufficient severity in Illinois to kill practically all infected *Anopheles*. Hence, man is the chief reservoir for carrying over the infection from season to season. Considering this with the relatively low endemic index, I am convinced that the adequate treatment of all malaria cases, both the acute and the more important chronic, would result in the rapid reduction if not elimination of the malaria at present existing in the state. This brings the responsibility directly to the physician; he must recognize the chronic disease as well as the acute; he must adequately treat, that is, disinfect all

cases. If the sources of dissemination can be detected, quinine sterilization offers great promise.

"Chronic" versus "Latent" Malaria.—At this point the question arises, "What is chronic malaria?" Chronic malaria is a persistent infection with malaria parasites which cause varying symptoms at varying periods. Latent malaria is the asymptomatic chronic infection. Most writers treat at length of the latent form, passing briefly over the chronic. It is my belief that most of the so-called latent cases are chronic malaria during an apparently symptomless period. I do not deny true latent types. I rather wish to emphasize that most latent cases do give rise to symptoms at varying times, which suggest the presence of the underlying infection. Most of the statistics on latent malaria are compiled from hospital records, and obviously the periods of minor yet significant symptoms are not taken into cognizance. My experience for the most part has been in the field, having intimate contact with cases not in institutions. It is this experience which leads me to take issue with many authorities on the distinction between latent and chronic cases.

Latent malaria, as such, cannot be diagnosed except by the finding of parasites in the blood. Chronic malaria, and this is most important, can as a rule be recognized at varying times during its course, in addition to the acute relapses.

Symptoms in General.—There are no definite clinical pictures found in chronic malaria. Various combinations of many "minor symptoms" are the rule. Many will be recognized as those which occur during the prodromal stage of an acute attack. They are anorexia, malaise, fatigue and yawning, headache, aching in the back and extremities, accessions of fever, night sweats, irritability, anemia, subicterus, alimentary tract disturbances, enlargement of the spleen and liver, and neuralgic manifestations. A few or many of these occur in a given case, and they usually do not continue without periods of abatement. All are sufficiently frequent to merit attention. The usual picture is that of a patient complaining of feeling "run down" and "out of sorts," knowing that he does not feel well, yet not knowing exactly wherein the trouble lies. A

careful investigation will reveal suggestive complaints.

Symptoms in Detail.—Malaise and fatigue are very frequently complained of. The importance of these is mainly that they are indicative of a bodily and mental condition below par. A suggestive associated symptom is frequent and excessive yawning. A patient can often tell the presence of increased malarial activity by this symptom alone.

Headache is common, is either frontal or occipital and occasionally is definitely periodic. I have several times made a diagnosis, proved by blood examination, from the periodicity of headaches, the single complaint. Aching in the back and extremities is also frequently seen, is usually not severe, and is apt to come and go in "spells."

Fever is relatively unimportant, not because it does not occur, but because the patient is not conscious of it and the doctor seldom investigates. Periods of slight evening rises are more frequent than supposed, and my experience has been that it is of daily occurrence rather than of a tertian type. A patient often tells you he does not have fever, but feels warm during the latter part of the afternoon.

Night sweating in my opinion is one of the most frequent and suggestive of symptoms, though rarely mentioned. The patient notices it, will tell you of it, and it is less of a non-descript symptom than many of the others. It, too, more frequently fails to show periodicity than not. My impression is that night-sweats gave us a clue to chronic malaria, substantiated by results of blood examinations, more often than by other symptom. I might add that often a characteristic musty odor to the sweat gives a hint to the nature of the trouble.

Anemia is commonly present, though not essential. It is usually of a mild grade of the secondary type and often overlooked, especially in negroes.

True jaundice is seldom seen. A subicteric tinge to the sclerae is frequent, and the patient will state that he has periods of looking "bilious" and sallow.

Gastro-intestinal disturbances are often complained of, especially anorexia and constipation. Not seldom do we find gastric syndromes similar to those of ulcer, chronic gall bladder disease, or chronic appendicitis.

A sometimes prevailing impression is that splenic enlargement is a feature of chronic malaria. Except in the severe grades of infection, approaching cachexia, it is, I believe, more commonly absent than present. When found, it is a valuable positive sign; its absence is of negative significance. The same may be said of enlargement of the liver; this, however, is of more frequent occurrence than is usually stated, particularly during a period preceding a relapse. It is generally accompanied by an enlargement of the spleen, though not always so.

There is a varied group of nervous symptoms, one or more of which is commonly present in chronic cases. A condition of general nervousness and irritability is usually complained of. Insomnia, or rather, "broken sleep" occurs during periods of augmented parasitic activity. H. deBrun has directed attention to a condition of "Paludal trembling"—frequently observed in chronic cases. This tremor is characterized by a slight vertical trembling of the fingers. The oscillations are of irregular amplitude, are least during positions of rest, and are more marked during intentional movements. It is an essentially unstable tremor, liable to rapid changes in daily intensity and at different times during the same day. This trembling generally increases during the pre-paroxysmal period, decreasing after the accession. I have often noted this tremor, which, of course, must be differentiated from that due to alcoholism, neurasthenia, hyperthyroidism, quininization and other tremorous states. A seldom mentioned symptom, which to me is suggestive, is a condition of eye fatigue, indistinguishable from what is ordinarily understood by eye strain, i. e., pain in eyes and headache. Whether the basis of this is a nerve disturbance or simply muscular fatigue, I cannot say.

Various neuralgic manifestations are occasionally the presenting symptom. Among these might be mentioned supra-orbital, brachial and sciatic neuralgias, though other nerves may be involved; a related affection not infrequently seen is herpes zoster. The simple herpes is more apt to occur during an acute attack.

Chronic nephritis should be mentioned as occasionally associated with and resulting from chronic malaria.

Malarial cachexia is seldom seen in this state. It is an advanced stage of chronic infection in

which the resistive powers of the patient have been overwhelmed by the parasitic invasion. It usually results from repeated attacks and chronic infection producing a condition of severe anemia, splenic enlargement, physical and mental incapacity. Ascites, edema, and icteric pallor are often exhibited. It is a stage of the disease with which we are not concerned.

Diagnosis.—The diagnosis of chronic malaria is not always an easy task. Many of the symptoms presented are common to other diseased states. Nevertheless these symptoms should arouse a suspicion of an underlying malaria. When any of the symptoms display a tendency to periodicity, their value is greatly enhanced. Unfortunately, irregularity rather than the opposite is the rule. Chronic tertian infections usually lose their characteristic periodicity and often give rise to syndromes suggestive of estivo-autumnal infections. In the work of the International Health Board at Mound, La., clinical diagnoses would indicate about 65 per cent malignant tertian (aestivo-autumal) infections. The blood examinations revealed just the reverse, about two-thirds benign tertian infections. The diagnosis must be largely presumptive and based on clinical findings. The finding of parasites in the blood makes the diagnosis positive. More frequently than not parasites cannot be demonstrated except by repeated examinations over a considerable period of time. This is not usually feasible. A leucopenia is not constant, but if present, especially if associated with a relative increase of large lymphocytes, strongly favors a diagnosis of malaria. If added to this, pigment granules are present in the lymphocytes, the diagnosis is almost certain, despite the absence of parasites. In chronic malaria more than any other type does the therapeutic effect of quinine aid in establishing the diagnosis. Quinine exhibited over a period of a week will usually dispel the symptoms arising from a chronic infection.

Chronic Malaria—A Focal Infection—The consideration of chronic malaria as a focal infection is most illuminating. The infection is focally situated principally in the bone marrow, spleen and liver. The symptoms, pointing to a generalized toxic disturbance, are the indefinite, obscure complexes so familiar in focal infections of other types. There remains much to be said when regarded from this angle. Suffice it to re-

mark that in malarious communities, manifestations of the character of focal infections, may derive from a chronic malarial infection.

CONCLUSIONS

1. Malaria is essentially a chronic infection.
2. Chronic malarial infection is frequently accompanied by symptoms which should lead to its recognition.
3. Chronic malaria is an important factor in the dissemination of the disease.
4. Chronic malaria is one type of focal infection.

DISCUSSION

DR. ROBERT W. KEETON, Chicago: This is a decidedly important subject. When I begun the study of medicine a man who had been in the practice for a long time gave me a bit of his experience. He said: "You can get about seventy per cent. efficiency in medicine with very little effort. If you raise the percentage of efficiency to ninety there is required a tremendous increase in the energy to be expended. The diagnosis of malaria presents itself to the man practicing in non-malarial districts as an opportunity to raise his efficiency from the seventy to ninety per cent. Chronic malaria in its symptomatology simulates so many other diseases that it should be definitely considered in the differential diagnosis of many obscure conditions, particularly those, in which the symptoms presented, suggest a focal infection. I wish to cite a few illustrations of this point.

A patient entered Cook County Hospital complaining of headache. This was so severe that it was prostrating and the patient's actions were of such a nature that his transfer to the psychopathic ward was seriously considered. The facilities for diagnosing his case were splendid. He was examined from every angle by all departments of the staff, but still no cause was found for the headache. He remained in the hospital as a target for work among the internes. With every change of service "Mike's headache" presented itself as a problem to be solved by the incoming internes. Fortunately a fever was discovered on him one day. After repeated examinations made during the succeeding days the malarial parasite was recovered, and a few doses of quinine changed completely the physical condition of Mike so that there was no longer a question of his sanity. The solution of that problem was missed for a long period because malaria was not considered and the diagnosis was finally literally forced upon us. A returned missionary from China had been examined for the usual causes of headache without results. Quinine given by the method introduced by Bass for sterilizing malarial carriers gave her complete relief. Always consider therefore the possibility of malaria being the cause of a given headache before admitting to the patient that you have no relief to offer.

A man in a neighboring hotel had been confined to bed for three days with a diagnosis of influenza. He

was awakened at 4 a. m. with a chill. I saw him later in the morning. At this time some prostration was present but examination revealed no pulmonary findings and no increase in respirations. Why then should a patient who had been resting in bed previously and who now presented no signs of pulmonary involvement have a chill at this hour of the day? He had a decided southern accent, and questioning revealed that he had made a recent visit to the south. Although his stay was short it was sufficient for inoculation.

There is a symptom complex known as biliousness concerning the mechanism of which we do not know very much. We do know that it is a frequent prodromal symptom of the malarial paroxysm but more often it occurs without the paroxysm. This symptom is relieved best by calomel. Consequently the southern people are addicted to calomel as a cathartic. This same symptom presents itself in many other conditions in which there is a disturbance in the peristalsis of the duodenum. People suffering from chronic constipation present periods of biliousness, but the symptom finds itself most completely developed in cases of migraine. Consequently when a patient complains of biliousness in Chicago, do not say with an air of finality, "You have migraine." Let us transport ourselves south where a patient says, "I am bilious," and the doctor reaches for the quinine bottle. It may be that one of these patients has drifted north and we will miss our opportunity of getting into the ninety per cent. class.

The problem of malaria in non-malarial districts is in much the same status as the problem of syphilis in the rural districts used to be. There was no syphilis in the rural districts. It was not looked for, therefore it was not discovered, therefore it did not exist. Malaria does exist in the non-malarial districts of Illinois. It is only awaiting discovery and diagnosis.

ELECTRO-ROENTGENOGRAPHIC DENTAL DIAGNOSIS*

HAROLD SWANBERG, B. Sc., M. D.

Roentgenologist to St. Mary's Hospital and Blessing Hospital
QUINCY, ILL.

The purpose of this paper is to show means by which dental diagnosis can be greatly facilitated and to make a plea to physicians and dentists to become more versed in the usefulness of the electric test for pulp vitality.

Physicians may ask why they should be requested to learn something, which, at first thought, may appear purely of interest to dentists. However every practicing physician is almost daily searching for foci of infection in patients suffering from various disorders. While

the site of etiologic focal infection may be almost anywhere in the body, by far the greatest number are located above the neck and the teeth constitute a large percentage of this number. As Moorhead¹ states, the probability of dental infection must be given first consideration in all cases of focal infection between 25 and 60 years of age. The teeth and their surrounding structures should be looked upon as foci of infection in these cases until otherwise proven. To successfully diagnose these dental sources of focal infections, roentgenograms are absolutely necessary. It is taken for granted that every physician and dentist is convinced of the great aid roentgenology has rendered in dental diagnosis. The consensus of opinion in regard to this is well stated by Thoma.² "Roentgenology has become a most important means of diagnosis and a great aid in the treatment of diseases of the oral cavity. For many conditions the roentgenogram is only used to ascertain the exact nature of the lesion which has already been diagnosed by other methods, but for chronic diseases which occur without giving any symptoms, the roentgen method is sometimes the only way by which the lesion can be discovered. In searching for the cause of nerve irritation or for foci of infection, negative findings are often as valuable as positive ones in establishing the presence of and eliminating oral diseases as causative factors. No dentist who has the welfare of his patients at heart can practice today without the aid of this important method of examination."

Conceding the value of roentgenographic diagnosis, we have not yet fully realized the great usefulness of the electric test for pulp vitality in oral diagnosis. While the test is well known, but comparatively few dentists use it. This is said to be due to the fact that its importance and value have not been fully appreciated, that a correct technic has not been mastered, and that dental electrodes in use are inadequate. The electric test for pulp vitality is of the greatest importance to anyone who attempts dental diagnosis and is often indispensable. The test used as an aid in interpreting dental roentgenograms gives us the most perfect form of oral diagnosis that we know of today. Physicians are continually receiving reports of dental roentgenologic examinations made on their patients and should be in a position to know the value

*Read before the Adams-Hancock County Dental Society, Quincy, Ill., Feb. 6, 1923.

of the vitality test in order that they may be able to suggest it when necessary.

Principles of the Test.—The objects of the test are, of course, to find out which teeth are vital or not. *The principles of the test are based upon the fact that a tooth with a vital pulp is never the source of a periapical infection, while a tooth without a vital pulp MAY be infected. A tooth with a periapical infection will never show a vital pulp.*

The electric test is by far the most reliable of any tests we have to recognize pulp vitality, although not infallible, and is attended with no dangers.

Advantages of the Test.—The advantages of the test are well given by Raper³:

The advantages derived from using the electric test for pulp vitality, in connection with radiographic examination, are: 1. Misinterpretation of radiographs is much less likely to occur. 2. The application of the test enables the operator to select those teeth which should be radiographed with especial care. 3. Because it assists in radiographic interpretations and because it points out the particularly suspicious teeth, the test reduces the number of exposures necessary, particularly the number of make-overs necessary. (This is especially advantageous to the conscientious operator.) 4. When, in a case of metastatic infection the patient cannot afford to have all parts of the mouth radiographed, the number of radiographs made, and so the cost, can be reduced to a minimum by eliminating those teeth from examination which respond perfectly to the electric test for pulp vitality.

Technic of the Test.—Those most proficient in the vitality test say that it requires more skill and judgment to apply the electric test correctly than to make photographically good roentgenograms (not good roentgenographic diagnosis). There are many points in the technic of the test, etc., which are not within the scope of my work. However, to those interested I would unhesitatingly recommend a careful study of Raper's "Electro-Radiographic Diagnosis," an excellent monograph which is devoted entirely to the subject and from which I quote.⁴

Everything considered: The inadequate dental electrodes which have been used. The inadequate machines also. The erroneous idea that the technic for electric pulp testing requires almost no knowledge or skill, that the entire subject is covered in the eight fundamental steps in technic set forth in Chapter IV, in less than five hundred words. The unwillingness to accord the test and its technic sufficient respect. I say, everything considered, the wonder is not that some men attack the test but that it is as popular as it is.

Limitations of the Test.—Again quoting from Raper's excellent treatise.⁵

Every test, everything, for that matter, has its limitations. The most outstanding limitations of the electric test for vitality of the dental pulp are:

1. Crowned teeth cannot be tested. (One must continue here to use the thermal tests which the electric test so nearly displaces altogether, or make a diagnostic opening.)

2. Some teeth with very large fillings cannot be tested successfully. Fortunately there are not many such teeth.

3. In multirrooted teeth, where the pulp in one canal is vital and in another non-vital, the response to the electric test is practically the same (a little weak) as though all parts of the pulp were vital.

4. One is doing well to determine, from the electric test, simply whether the pulp is vital or not. Even this cannot always be done. The average operator (the writer includes himself in this class) will find it impossible, except in the rarest cases, to diagnose pathologic states of the pulp with the electric test. One is treading on treacherous ground indeed when, after applying the electric test, one makes bold to say, "The pulp is vital and in a state of normality or health, and this one is also vital and much inflamed with pus infiltration." It is not practical.

Clinical Value of the Test.—The most important discussion of any test is its clinical value in actual practice. I know of no better summary of all the conditions in which the test can be used to advantage than to quote the following from Raper.⁶

1. In cases of systemic disease to determine which teeth are most suspicious. 2. Where no x-ray machine is available. 3. To check all x-ray findings. 4. To find teeth with dead pulps which could not be found by any other means. 5. To find abscesses which might otherwise be overlooked because they fail to show in radiographs made at certain angles. 6. To assist in recognizing very slight osteoclasia. 7. To avoid mistakes when the end of a root and an abscess cavity (with no connection between the two) overlap in the radiograph due to the angle at which the exposure is made. 8. To avoid misinterpretation when the abscess cavity laps to the lingual or facial of the adjacent teeth. 9. To differentiate between the mental foramen and an abscess cavity. 10. To differentiate between the anterior palatine, or incisive, foramen and an abscess cavity. 11. To differentiate between the antrum of Highmore and an abscess cavity. 12. To differentiate between the somewhat radiolucent area which sometimes appears in the apical region of upper lateral incisors, due to the canine, or incisal, fossae, and radiolucence caused by infection and pathologic bone change. 13. To differentiate between nostril spots and abscesses. 14. To aid in the recognition of nasal fossae spots as such. 15. To aid in the recognition of the inferior dental canal as such. 16. To differentiate between a very small abscess cavity and an un-

usually large periapical space. 17. To differentiate between a cancellous spot of unusual appearance and an abscess cavity. 18. To assist in differentiation between pathologic and physiologic conditions about the buccal roots of the upper molars. 19. To assist in differentiation between an absorbed, roughened root and a radiograph made with the rays directed through the tooth diagonally from facial to lingual. 20. To differentiate between partially formed root and an abscess. 21. To determine how many teeth are involved in an abscess. 22. To assist in differentiation between dentoalveolar abscess and periodontoclasia (pyorrhea).

The author feels that the electric test for pulp vitality is very necessary in many cases as an aid to the correct interpretation of dental roentgenograms and urges that physicians and dentists avail themselves of it more frequently.

731 Hampshire Street.

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CHRONIC SEPTIC SPLENOMEGALY SYNDROMES*

F. BUCKMASTER, M. D.

EFFINGHAM, ILL.

The recognition of chronic enlargements of the spleen is now a matter of ancient history as far as we are concerned, but their classifications and respective differentiation was begun in the 19th century and is still under way. This one great general group of chronic splenomegalias was first split up in 1841 by Bennet of England and Virchow of Germany, when they almost simultaneously described one type of splenomegaly with changes in the white blood cells. This new grouping comprised the leukemias, and thus removed this class from the hitherto all comprehensive general group of splenomegalias. Ehrlich differentiated the two forms of leukemias—myeloid and lymphoid—in 1883.

Later another class of chronic splenomegaly syndromes was separated from the remaining large general group. This was the result of recognized changes in the erythroblastic elements of the blood—more or less definite red cell changes—which served to distinguish at first the primary type of anemia. Later on, a definite cause was determined in some of these cases as

for instance, the parasitic anemias and the like. Still later, (1892-1903) another group was differentiated by the red cell changes. This is the Polycythemia Vera group, in which chronic splenomegaly is associated with an abnormally high red blood count and hemoglobin percentage.

Hodgkin's disease, first described in 1832, was more definitely differentiated from the remaining group of splenomegalias 20 or 30 years later. In the meantime it was learned that tuberculosis and syphilis produced splenomegaly and later that malaria did the same thing.

In 1866 Greisinger and his assistant Gretzel described anemia splenica, a condition characterized by splenomegaly, and in 1883-1894 Banti described in detail the terminal stage of this type of anemia, at that time as a separate disease,—Banti's disease.

In 1885 Murchison first described the familiar type of hemolytic icterus and in 1898, Hayem described this and the acquired form as a clinical entity—a chronic splenomegaly syndrome—with chronic jaundice but without bile in the urine and without clay colored stools, though there was nothing distinctive about the type of anemia to separate it from the early described splenic anemia.

Thus, we see that by the process of differentiation and exclusion first one group and then another of chronic splenomegaly syndromes have been split off from the original one, general group, and reclassified and described in more definite detail. We still retain the term splenic anemia to designate largely the remaining group of chronic splenomegaly syndromes, characterized by chronic enlargement of the spleen, frequently the first important finding, associated with a secondary chlorotic type of anemia which tends to become marked finally. The chronic enlargement of the spleen may be the only important finding for a long period of time. In the second stage the anemia becomes an important factor together with leukopenia. In the terminal stage, a secondary, portal type of hepatic cirrhosis with consequent ascites, hemorrhages, exhaustion and death.

Many factors are probably concerned in the production of this left-over and still undifferentiated group of splenomegalias but they are in a general way unknown. Thus, thrombo-phlebitis of the splenic vein brings about a syndrome which can not be differentiated. In this great

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group of so-called splenic anemias, the essential spleen changes consist of chronic fibrosis, thrombo-phlebitis and an atrophy of the pulp cells. When we are able to recognize a definite cause in one of these cases this syndrome then is recognized as belonging properly to the etiologic disease and not as a case of splenic anemia by name, though the spleen changes and the further progress of the condition may be identical in the two classes of cases.

The anemia largely results from these chronic spleen changes themselves without special regard to the cause of the changes.

Functionally the spleen is not an isolated organ of independent action. It functions as an important part of several systems: (a) The spleen-liver filtration-detoxication system; (b) The hematopoietic system; (c) The lymphatic system, the spleen really being classified as a lymphatic structure; (d) Its connection with the endocrinopathic system and the question of possible internal secretion are more uncertain. Many functions are attributed to the spleen but none are so all important that they are not rather readily assumed by other parts of the various physiologic systems with which the spleen is associated; hence its removal is well tolerated physiologically. However, there are two functions which bring it prominently into the lime light in these splenomegaly syndromes: (a) Filtering infective and toxic substances from the general blood stream; (b) Its power of destroying crippled, worn-out red blood cells.

Like the liver and kidneys it receives an enormous amount of blood in proportion to its real nutrient needs. This fact alone suggests a special action on this enormous amount of blood which passes through it and which comes entirely from the general systemic blood stream. From the spleen, it has but one outlet, through the splenic and portal veins to the liver, which is the greatest detoxicating organ of the body and the one most capable of regenerating itself. The blood in the spleen comes into the most direct relationship possible with the great mass of pulp cells.

The liver stands between the portal blood stream and the systemic circulation and its work of detoxication and elimination has to do directly with the portal blood, 25 per cent of which is made up by the blood which comes from the

spleen. It has nothing to do with the filtration of the blood from the general stream except as this first comes through the spleen.

Thus a primary enlargement of the spleen with secondary enlargement of the liver would at once suggest to the observer that the infective or toxic substances as directly related to the splenomegaly must be carried primarily by the general blood stream. On the other hand, in the case of primary liver enlargement with secondary spleen enlargement, the observer would think first of the portal blood supply itself and of the regions whence it comes, which of course includes the spleen. If the source of infective material causing the liver enlargement is coming from the spleen and not from the other tributaries of the portal vein, then the spleen would show the first and most marked enlargement, with the liver changes occurring secondarily.

In such cases it is presumed that the spleen is unable under the conditions, properly to filter and to detoxicate the blood brought to it. It finds itself unable to finish what it has begun. Then after the spleen acts on this great quantity of systematic blood it is turned over to the liver through the splenic vein, which purposes to finish the work of filtering and detoxication begun by the spleen, and this accounts for the secondary liver involvements and enlargements in those cases in which the systemic blood stream is carrying an unusual amount or type of poison and in which cases the spleen can not handle the situation as presumably it does largely under normal conditions.

In many of these splenomegalias the increased demand for this work on the part of the spleen and the increased efforts on the part of Nature to do this work, accounts for many of these spleen enlargements—largely work hypertrophies in themselves. Enlargement of the liver due to systemic stasis from heart incompetency of course, is not considered in this class of enlargements, as it is not directly due to an infective or toxic substance.

Infective or toxic substances may be distributed to the liver through the bile duct system in its elimination from above downward, producing biliary cirrhosis with jaundice. General infections such as syphilis may cause this type of cirrhosis and so may chronic focal infections. The spleen becomes secondarily enlarged

but ascites does not develop unless there is an association of cirrhosis of the portal type sufficient to obstruct the portal circulation. This often occurs later in the progress of the case. Moderate spleen enlargements of transient type have long been recognized in connection with the various acute infective conditions, in which the systemic blood stream is carrying infective or toxic poisons, but with the disappearance of the acute infection, the spleen rapidly returns to normal.

Splenomegaly becomes one of the important early findings in a variety of syndromes all of which bear more or less intimate relationship to one another. Anemia sooner or later becomes another regular and important finding. These associated anemic states may become very serious in themselves and are often the apparent cause of death. These anemias are the secondary type, at least those associated with the greater enlargements of the spleen.

In these chronic splenomegaly syndromes the spleen enlargement is not to be thought of as the disease itself though it frequently becomes a matter of the greatest importance during the progress of the syndrome, especially because of its power to destroy the red blood cells and even the platelets and white cells. Why this increased destruction of the cellular elements of the blood thus occurs, is not well known, but that it does occur at a rate that threatens the life of the patient in many cases, seems an established fact. Hence in many of these cases the spleen becomes finally the greatest disturbing factor in the syndrome and must be dealt with accordingly. Presumably the removal of the causes of these chronic splenomegaly syndromes would largely result in spontaneous recoveries, especially early in the progress of the condition, but in a general way, very little satisfactory knowledge as to the operative causes in these syndromes can be had and it is only in the occasional case that these causes become definitely understood.

In this connection I wish to report two cases in which the tonsils were predominantly the focal infection producing chronic septic splenomegaly syndromes, with acute recurrent exacerbations characterized by rapid onset with or without chill, but with high fever, definite anemia of the secondary type, loss of weight, primary spleen

enlargement and with secondary liver enlargement.

Case 1. L. C., aged 35 years, white, male and a farmer. He was seen in consultation at home on October 24, 1921. His family history was negative. His past history showed that he had never been sick and that his normal weight was 145. His habits were good.

Present Trouble. In August, 1917, he had his first attack characterized by a throbbing, more or less continuous pain in his left upper abdominal quadrant. It was localized. With this he had high fever but never has had chills. These exacerbations of pain and fever had repeated themselves every three to several weeks for the past four years. His physician states that the patient's fever ranged from 102 to 105 in these attacks, which lasted a few days. Also that he had always felt an enlargement in the upper left abdomen during these attacks and that the liver was usually considerably enlarged also.

Between these exacerbations the patient had no pain or fever and worked. His physician did not see him often in these free intervals, but was able to find even then, that the upper left abdominal mass was still present but much smaller and not tender or painful and that the liver enlargement apparently was absent.

Physical Examination at the time of this visit at home, showed the patient apparently quite ill. He had fever of 104 and had rather marked anemia of the secondary type but no jaundice. He had tonsils which showed the appearance of a moderate chronic infection. The teeth and gums appeared to be negative though he said he had two teeth removed because of a little localized infection two months before. The chest, lungs, heart and aorta appeared to be negative. Blood pressure was 50/95 and pulse below 100. Examination of the abdomen showed a definite upper left abdominal mass which extended well beyond the rib margin, was movable to some extent, and was tender to manipulation and he described this mass as the site of his moderate pain discomfort during these attacks, though at times these pains were quite troublesome. This mass was an enlarged, rather firm spleen. The liver was considerably enlarged, reaching from the 5th space in front to three or four fingers below the rib margin. It was moderately tender. There were no other important findings and no lymph glands were palpable except those draining the tonsils.

On October 30, 1920, he entered St. Anthony's Hospital for a more extended study. He had been up for two days before coming and was feeling much better and without fever. At this time he weighed 130 lbs. and his blood pressure was 60/110. The spleen mass was only just palpable and was not tender. Liver was within normal limits of size.

Laboratory examination at this time showed blood Wassermann negative, urine 1018 and negative otherwise. Stomach contents examination was negative except for a moderately increased acid finding. Stool examination was negative and no parasites could be

found. Blood examinations for malaria were negative at different times. Blood counts showed total whites 8100, polys 68%, large lymphocytes 17% and small 15% with hb 72%. These examinations were repeated a number of times with practically the same general findings except that his blood state improved under treatment. He continued, however, to have these relapses, during which the spleen and liver became enlarged, his fever high and his anemia more marked. In November and December he was given five or six Neosalvarsan treatments with the idea of improving his anemia and as anti-syphilitic test treatment. His anemia improved moderately from these treatments but his relapses continued though his weight got back to 145, which was normal, by the end of January, 1922.

X-ray examinations of his teeth, chest and gastrointestinal tract had all proven negative. He was still continuing in his cycles of relapses. I had observed that his tonsils were definitely infective at each examination and I suspected them as the cause of these attacks. Examinations had shown that the spleen was the organ first to enlarge and the liver second, showing the infection to be coming to the spleen through the general blood stream and the enlarged, tender, tonsillar lymph glands and infective appearing tonsils localized my attention to this region.

I advised him to have tonsils removed which he did in the spring of 1922 at another hospital. I have not seen him since that time but his physician informed me about the first of May, 1923, that this patient was a great deal better since his tonsils were removed but that he had had an occasional attack of mild character since that time without much fever and probably without much spleen enlargement but his physician had not seen him with any regularity since tonsils were removed. This patient of course is not well. There may be further infection in the throat region which is continuing the symptoms in a mild way but it seems that he is so nearly well that he has practically ceased to consult physicians. He has no liver or spleen enlargement as far as his physician has determined during his free intervals, and he is not anemic.

Case 2. A boy of four years who was seen in consultation on January 7, 1922. The family history was negative and the child's past history showed that he was a healthy baby and apparently had been well and was a plump child, except that he was rather subject to colds and had had three or four so-called "pneumonias" in previous winters.

Present Trouble. In March, 1921, this patient had a hard chill and a high fever, daily for two weeks with severe sweats and with great enlargement of the upper abdomen due to spleen and liver enlargement. His anemia became marked during this attack. He had appeared to be well up to this onset. After the end of two weeks he slowly regained himself and the liver and spleen enlargement largely subsided and his

anemia improved but he never felt as well as before this attack.

In July, 1921, he had a recurrence of hard daily chills, high fever, sweats and with marked anemia and prostration, lasting two weeks. In this attack also the liver and spleen became large. Gradual improvement again followed but his recovery was incomplete as before though he was not under the physician's care or treatment regularly during these intervals.

On December 15, 1921, he again developed an acute relapse with daily chills, fever, anemia and liver and spleen enlargement as before. In these three attacks his fever had usually reached a daily maximum of 104 to 105 and his pulse was well over 100. He was in the midst of one of these acute attacks, with fever 105, when I saw him.

Physical Examination showed a thin, very anemic-looking child without cough, or lung or heart changes. His tonsils however, were very infective in their appearance and were large and he had several large, tender lymph glands behind the angle of each jaw. The family had noted the enlargement of these glands especially during these relapses. His abdomen was large due to an enlarged spleen which reached far out into the abdomen and a secondary enlargement of the liver. The spleen was much larger in proportion than was the liver, showing that it was the organ of primary enlargement. Again it was evident that the general blood stream was carrying the infective substances and the local throat and lymph gland findings indicated the focal source of this infection. The child was very ill. No laboratory examinations could be made at this time. Clinically this case at this time was considered to be a chronic septic splenomegaly syndrome secondary to tonsils but the child was thought to be syphilitic, not because of any positive findings or any evidences in the appearance of other members of the family, but because of his extremely low resistance to infection. A mercurial rub was directed and carried out each night for a week and a little aspirin was given as a symptomatic treatment. He had no further chills, his fever subsided and he again improved as before.

On March 9, 1922, he was brought to St. Anthony's Hospital. He was still under-nourished and the spleen was still moderately enlarged but the liver was practically within normal limits. The tonsils were very infective-looking but the lymph gland enlargements in the neck had largely subsided. His urine was 1002 but negative otherwise. His hemoglobin was 70%, the total whites 6300, polys 64%, large lymphocytes 14%, small 16% and Eos 6%. The stool examinations were negative, no parasites of any kind being found. The tonsils were removed the next day after entrance and the child has made a remarkable recovery, returning to his usual good health and color and plumpness in type of build, and has had no further symptoms and the spleen and lymph gland enlargements have entirely disappeared.

These are undoubtedly chronic septic splenomegaly syndromes in which the tonsils were

an important factor. The first patient cited apparently is not entirely well. This may be because of carrying a residue of infection about his naso-pharynx or mouth, even since his tonsils were removed, or it may be due to more marked and more permanent spleen changes in this case.

Spleen enlargement in some degree is a very frequent association in secondary types of anemia and it should always be thought of in this relationship. All chronic splenic enlargements are potentially surgical, yet in not all of these chronic splenomegaly syndromes has removal of the spleen proven generally satisfactory, but this has been especially true in the hemolytic jaundice cases and in the large complex group of splenic anemia cases and would probably prove equally satisfactory in the chronic septic splenomegalias, barring especially unfavorable septic changes elsewhere, which would necessarily continue the patient's ill health and danger. It has also been curative in a certain type of splenomegalias due to hibernation of the infection in the spleen as in syphilis, malaria and the like, which conditions may finally produce a syndrome typical of the findings in so-called splenic anemia. Happily these cases are infrequent. However, chronic splenomegaly syndromes of various classes but usually due to unknown causes, are quite common and the spleen should not be forgotten as an important factor in these cases. Surgical removal should be considered early in the presence of peristant splenomegaly syndromes except in those groups where it has been proven of doubtful benefit, but an effort should always be made to determine the causes in such cases, and to remove them if possible. Focal infections should be looked to most carefully.

DISCUSSION

Dr. A. C. Schoch, Bloomington: I would like to ask if the blood picture in Case I has changed to date.

Dr. F. Buckmaster, Effingham (closing the discussion): If I understood the question, the Doctor wants to know what the blood picture is now or recently. I have not seen the patient since he had his tonsils removed a year ago. His physician at home says he seems to be carrying weight normally, his color is good, but he has had no blood count made. The man has considered himself so nearly well that he has practically not consulted anybody. The Doctor has called him in from the street and made examination several times during the past year and seems to think that he is improved.

CO-OPERATION BETWEEN THE CLINICAL LABORATORY AND THE PHYSICIAN*

JOSIAH J. MOORE, M. S., M. D.,

Director National Pathological Laboratory, Chicago. Secretary, Section on Pathology and Physiology, American Medical Association.

CHICAGO

A most satisfactory arrangement in laboratory service is one in which the physician himself is a trained clinical pathologist and has the time to oversee the various laboratory examinations. Having first hand knowledge of the clinical symptoms, the tests and their interpretations are made accordingly and as the physical examination is directed either to conform, or deny, certain suggestions that are obtained in the history, so the laboratory tests are likewise applied with a similar endpoint in view. The multiplication of specialties, the limitation of the day to twenty-four hours and the many technical details and varied equipment necessary in the new laboratory procedures, prevents the majority of physicians from indulging their desires and inclinations. And, I am fully convinced that this is their desire because hardly a day goes by that some physician does not say, "I wish I had more time to keep up my laboratory work."

Since both the clinician and pathologist realizes that one individual can rarely combine all the qualifications then we must adopt some plan that will give equally good results. This has been done by installing laboratories in hospitals or in central locations in the larger communities.

The hospital laboratory with a competent pathologist in charge where the pathologist can either see the patients with the clinician, or at least can be in close contact with him is very satisfactory. However, there are hundreds of hospitals equipping laboratories and only very few competent pathologists in the country to man the same. To make matters more serious very few young men are taking up pathology in the medical schools as a life specialty. The difference in remunerative returns between the pathologist and practitioner have been so marked that many of the teaching pathologists are advis-

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ing their students to learn pathology only as a foundation for the better practice of medicine.

To overcome this scarcity in competent pathologists one man may be employed by several hospitals on a part time basis. This has been found to be a very satisfactory working arrangement in some places. But to care for those hospitals whose size, income or location does not permit either a full or part time pathologist and for a large number of physicians who prefer their laboratory work performed by the more prominent pathologists, there has arisen in this country particularly, a large number of clinical laboratories situated usually in the larger communities. I wish to speak particularly of the physician's relation to these laboratories, but the remarks will apply equally well to others. How can we get the best results from such an arrangement? Good results always react favorably upon the physician through his patient, and the best results are always those which give the most benefit to the patient.

In the first place I would advise every physician that he cannot get in too close contact with his laboratory. Become personally acquainted, if possible, or correspond with the personnel. The directors and workers in a laboratory are much more important than equipment, space, or material. A good personnel should give out reliable reports, a poor personnel frequently cannot. Find out from those in the same specialty if the individuals are reliable and competent. Do all you can to know that they merit your trusting them with tests and diagnoses that are of the utmost importance to you, and when you have found the laboratory above reproach and you are satisfied, have confidence in them.

Trust your pathologist and laboratory man. If you do not trust him select some one in whom you will have confidence.

In my opinion every Wassermann test should be accompanied by a brief history of the case. Best results can always be produced if the physician and serologist work together. For instance, if a patient is problematical, if he is for general information, if he is an early luetic suspect, or a late luetic suspect, if the physician would give this information to the serologist it would assist the serologist in interpreting Wassermann results. A reliable serologist simply wishes to reach the truth of the situation and a physician need not fear that the results of the test are

going to be juggled because he happens to know something of the case. If one cannot be trusted with the history, how can the same individual be trusted to perform such a difficult, delicate procedure as a Wassermann test. The serologist usually has no way of checking up his results with clinical symptoms and diagnosis except through the information he receives from his physician.

When the Wassermann result differs materially from that anticipated by the physician, it is always advisable to have the test repeated. It may be that it is necessary to have a number of tests done and the patient be kept under observation over a period of time before a final decision either way may be made. The serologist is most happy to work with the physician in a case of this nature. When a result has particularly pleased a physician it would be a source of much encouragement to the serologist if the physician would mention his approval.

Anything that means as much to the patient as a Wassermann result, either positive or negative, is worth doing right or not at all. Physicians often send in most inadequate material in cases of blood and spinal fluid both and expect par-excellence results. The serologist must have suitable specimens in order to give reliable results. When a patient has gone through the discomfort of a spinal puncture the least that can be done is to withdraw enough fluid so that a complete and thorough examination may be made that the patient may truly profit by the result. If in such cases enough material would be taken and a request made for all examinations be done, much time would be saved on the part of the physician, the patient and the laboratory concerned.

Fortunately the Wassermann test although still looked down upon by many is becoming of greater value as the technical procedures are controlled. A recent editorial on the Wassermann test in the *Journal A. M. A.* reads: "It cannot be said at this time that a positive Wassermann reaction is obtained only in syphilitic infection, but the trend of recent investigation is very strongly in that direction." With closer cooperation between the clinician and the laboratory the errors which are inherent in this test can be reduced to a minimum and can be quickly corrected and explained as they arise.

It is sometimes very difficult to differentiate

between a syphilis of the nervous system and epidemic encephalitis. The examination of the spinal fluid if sent in with no history, but simply calling for a routine examination would consist of a cell count, globulin test, Lange colloidal gold test and Wassermann reaction. If positive, they would indicate syphilis, but they can be negative in syphilis. If a history or the differential diagnosis of encephalitis accompanied the fluid we would now test for sugar by the Folin method (not by the procedure of reduction in Fehling's (copper) solution.) The sugar frequently is increased in encephalitis and decreased in syphilis, thus aiding greatly in the diagnosis. However, this test would be done only if specified, or at the suggestion of the pathologist after communicating with the physician.

The pathologist is a consultant and I know of no type of specialist who is so willing, even anxious to give of what he knows to the clinician and patient without regard to future returns. This is shown nowhere so well as in the diagnosis of tissues or in the performance of autopsies. The most difficult task in a laboratory is the diagnosis of tissue. Many areas have to be examined in some instances before the nature of the lesion can be determined. It is always advisable that the entire specimen be sent to the laboratory, in order that the pathologist may use his judgment in selecting such areas. It sometimes happens that small portions selected by someone else and sent to the laboratory have failed to reveal the true nature of the pathology with quite disastrous after results.

In addition to the proper material it is of paramount importance that a brief but complete history accompany the specimen. To say "Breast" without giving the age, symptoms and history is not fair either to the patient, physician or pathologist. However, breast conditions are fairly easy to differentiate as compared with some others. For example when portions of a lymph gland growth are sent in for diagnosis with no history, differentiation sometimes is almost impossible. Ewing says, in speaking of lymphosarcoma that "The histological characters of the process together with its gross anatomy usually separate typical cases of lymphosarcoma from pseudo leukemia, leukemia and Hodgkin's granuloma, and from other tumors of lymph nodes. Yet since some of the above conditions may occasionally give rise to lymphosarcoma, it is im-

possible always to distinguish between them without *very full clinical data*."

MacCallum says that "from a single section it would probably be impossible from a study of the cells to distinguish between an involvement of a gland by chronic lymphoid leukemia, leucosarcoma, lymphosarcoma, and small round celled sarcoma." Stress is laid upon the gross appearance and complete clinical data, but too often does the laboratory receive a tissue marked lymph gland with nothing else. Many such similar incidents can be related in tissue diagnosis. Sometimes we feel proud of our successful diagnosis with no history, but we never make any excuse for our failures, knowing full well that we should not hazard a tentative guess without qualifications. Desiring to give the full value of experience, training and ability in this diagnosis, the pathologist should be supported by the referring physician with clinical history, symptoms and gross pathology.

In order to get closer co-operation between the physician and laboratory in this line of work we are now keeping a record of the after results on all cases of malignancy diagnosed by us, first obtaining the method of treatment and then by a yearly follow-up card. This gives us valuable information on treatment, virulency of growth, etc., which will later be of value to these same physicians. Secondly, we are installing a system of sending the sections upon which the diagnosis was made to the physician to stimulate his interest in pathology and for reference in his files.

These are but a few examples of where we can improve the cooperation between physicians and the laboratory. Others constantly come to the attention of all of us. At present we see references continually to various conditions associated with the psychic world. A famous Englishman is now going through the country lecturing upon this topic. This intangible, immaterial thing may be likened to morale; it is present in the smooth working laboratory and it is stimulated and increased by proper and intelligent assistance. Thus nothing aids as much as co-operation between the physician and laboratory in enhancing the thing the true laboratory most covets, the spirit of laboratory service.

DISCUSSION.

DR. CLIFFORD U. COLLINS, Peoria: Abstract admitted the ideal condition to be one in which the physician is a pathologist and clinical technician him-

self and thus able to do the work or have sufficient knowledge to properly oversee it.

The next best arrangement is where the physician and surgeon has the pathological laboratory in his office, but even in that situation, it is well enough in a disputed obscure case to have more than one opinion. It is his practice in such cases to send three or four specimens to different laboratories and in that way he fortunately came in contact with Dr. Moore a year or two ago.

In a trip east on the Tri-State special train he heard of cooperation with the x-ray man who was allowed to see the patient and get his own history. The physician made his diagnosis and the x-ray man also got the history and did his x-ray work and did his diagnosing and after that they came together and collaborated. He thought that an ideal arrangement. That would also be a good arrangement with the clinical laboratory man and the pathologist.

Unfortunately it is not always convenient for the pathologist to get the history. So it is perhaps better for the clinician to furnish him with the history.

As a matter of fact, the pathologist does not need that history ninety-nine times out of one hundred. You send him a specimen of tissue and he will be able to tell you what part of the body it came from. I know that because once I had a lad with a tumor in the right upper abdomen, made an exploratory incision and found a tumor of the liver, in an inoperable portion of the liver. A small portion was removed and sent to our own laboratory and a small portion to Dr. Moore. In the meantime we got suspicious and went more fully into the history of the family and found out that a little sister had a saddle nose. The history developed rapidly and we had a Wassermann made and it was positive. Dr. Moore promptly reported back that was a large gumma of the liver due to syphilis. So he didn't need any information.

Perhaps one time in a hundred the history will benefit the pathologist. There is no harm in telling the pathologist where you find a growth that is removed. It certainly does add to his interest to know there was an adenomyoma that should be found in the uterus but was found in another place.

Pick out your pathologist and have confidence in him. If you don't have confidence in him, don't have anything to do with him. If you do have confidence in him, then trust him. If you trust him and send him your clinical history, you will find your relations will be much more interesting and much more profitable.

DR. L. C. TAYLOR, Springfield, agreed fully with the idea of cooperation between the internist and the laboratory man. As a member of the Civil Service Board of the state and a member of the Examining Board since the present Civil Administration Code went into effect, he has had an opportunity to study the methods pursued in the different universities in teaching the students, and in the Medical Schools of Chicago.

By over-emphasizing the laboratory we have in many

instances gotten the younger men who are out fresh from colleges in the habit of referring their cases to the laboratory first, whereas the microscope should always come last.

In the practical examinations in the Cook County Hospital in the course of a year, some five hundred or six hundred cases are assigned to that many young men, with the advice: "Take the history of the patient first. Make a physical examination and write down your findings. If, after that, you want something from the laboratory, we will give it to you."

One of the internes came to me one day after I had assigned a patient to a bright young man but a little bit anxious about the diagnosis and said, "This man wants laboratory findings", about five minutes after he got the patient. He said: "I would like to have an x-ray picture of his chest. I want the Wassermann. I want the spinal fluid examination, blood examination and the urinalysis." I asked: "Is there anything else you would like to know about this patient before you examine him?" He said: "How are we going to make a diagnosis?" I replied: "Make the diagnosis just like you will if called in your Ford ten miles away and can't take your x-ray with you." This young man came to me at the close of the examination, thanked me for my suggestion and stated that he had had a very interesting case.

Don't ask for a laboratory examination until you know all about your patient that you can find out without a microscope.

DR. J. G. FRANKEN, Chandlerville, thought the duty of the physician is to find out what is the matter and whether we possibly can relieve the patient.

Most of us are general practitioners and are expected to do everything possible for the patient. If we cannot do so individually, we should do so collectively by getting the help of those who specialize in particular things.

If we have no time for laboratory work, we go to the one who knows. With his counsel we obtain better results. For the same reason we consult with the radiologist and the chemist. They help to get our patient better.

No general practitioner is able to make a Wassermann. He must send to the laboratory. Microscopic examination in simple matters we can attend to, but when it comes to stains we haven't the time nor have we the material at hand always to do all this. So it resolves itself to the relation between the general practitioner and the specialist.

The specialist is not for the patient, but the specialist is for the general practitioner to help him do his work more thoroughly and to better advantage for the patient. The patient is the one concerned the most and any and every means obtainable should be had for the advancement of the cause, whether it is individually or collectively, but we are living in the age of specialization and it takes a number of specialists to make one good general practitioner.

DR. S. L. GABBY, Elgin, did not agree that the laboratory man should have the history, primarily at

least. If the laboratory man, in my judgment, is to give a diagnosis or prognosis and tell the practitioner what treatment he should carry out, then certainly he should have the history. And that is what a great many laboratories are doing. He questioned if that is or should be the province of the clinical laboratory. He feels that the treatment and the interpretation of the laboratory findings should be left entirely with the clinician, and if the clinician is not able to make such interpretation, he should fit himself so that he can, unless there is such an arrangement as Dr. Collins suggests, having the laboratory man see the patient, get a history and make a physical examination. It seems to him impossible for the laboratory man, even with a reasonably good history, to make a diagnosis and advise the treatment, though it is done entirely too much.

DR. MOORE (Closing): In answer to the last speaker, I don't think that it is the main function of the laboratory to make prognoses and give suggestions on therapy, but frequently the laboratory can be of great service to the referring physician, in these fields.

For example, amputations have frequently been made for the removal of bone tumors. If the tumor was of the benign type, as we now understand the benign giant celled tumor, the amputation was unnecessary. If the tumor was a true bone sarcoma and metastases had developed in other locations, as the lungs, the operation was useless. I think the pathologist should lay emphasis in his report on the different characteristics of these tumors with their future outlook. If pathologists would then keep careful statistics on all such cases, obtaining the history and treatment from the referring physician for periods of five years and longer, some definite information could be obtained which would be of value to the profession.

The laboratory can accumulate a larger number of cases than the individual physician. The latter usually has only a few, which he considers insufficient to write about, and therefore valuable data is lost. The laboratory desires this data to give to physicians to apply as they see fit.

Dr. Collins kindly told of several instances where the correct diagnosis was made by me without a history. However on one occasion he sent a tissue which appeared to be a chronic metritis and endometritis but which on receipt of the history was classified as an adenomyoma of the broad ligament.

Regarding Dr. Taylor's remarks upon the use of the laboratory in his office, I recommend that all physicians do their blood counts, urinalysis and sputum examinations in their office laboratory if they have an efficiently trained girl or do the test themselves, the proper equipment and the time.

Regarding the last remarks he made about the practical examinations in Cook County Hospital. I attended one of these examinations and saw a fairly complete history beside each microscope. A good many men just out of school could diagnose the slides. Many of the older men read the history, and from this,

in typical cases such as Hodgkin's disease or carcinoma of the breast could make the correct diagnosis. In one case a doctor whispered to me, "I haven't looked in a microscope for several years, but that history is typical and I am going to put down carcinoma."

The history is seen therefore to help both the pathologist and the clinician.

HISTORICAL DEVELOPMENT OF THE CARE OF NERVOUS AND MENTAL DISEASES IN ILLINOIS*

HAROLD N. MOYER, M. D.

CHICAGO

Prior to the middle of the last century there is little definite data as to the care and treatment of the insane. The beginning of the century marked the settlement of the state by a pioneer population. In that period the number of insane was much less than in older communities, a discrepancy that obtained well down to the close of the century. The population was widely distributed. There were very few large towns, Chicago in 1843 having but 7,800 inhabitants. The bulk of the people lived on farms. In such a community the problems of mental disorder are not as acute as in crowded centers. The care of a disturbed mental case was not very difficult with the nearest neighbor a mile away. Home care for those with relatives, the poor house for the indigent, and the county jail for the more disturbed and dangerous patients was what was provided.

Illinois was one of the youngest of the states to provide institutional care for a part of its insane. In 1848 at a time when many of the older states were caring for their insane in poor houses and jails, Illinois was taking the first steps for the establishment of a state institution. A reference to this period calls to mind the unselfish and arduous labors of Dorothea L. Dix who studied the condition of the insane and memorialized the legislatures of many states, urging adequate and humane provisions for these unfortunates. She presented the facts to the legislature of Massachusetts in 1843, New York

*Read before the Conference on Mental Hygiene held February 14, 15, 16 under the auspices of the Illinois Society for Mental Hygiene, Chicago. This being one of three papers given before a joint meeting of the Chicago Medical Society and the Chicago Neurological Society. The other papers were "Present Situation Relative to the Care and Treatment of Nervous and Mental Diseases in Illinois" by Dr. Lewis J. Pollock, and "Outstanding Needs in Illinois from the Medical, Social, Educational and Investigative Points of View," by Dr. H. Douglas Singer.

in 1844, Pennsylvania in 1845, and Kentucky in 1846. It was largely due to her activities that the Illinois Asylum for the Insane was opened in 1851. In 1848 she urged the Congress to set aside a portion of the public domain for the care of the insane. The War of the Rebellion found her at the head of the comparatively few women nurses in the army hospitals. Circular 7 of the War Department was issued in 1862 to give greater utility to the acts of Miss D. L. Dix as superintendent of women nurses.

Twenty-one years after the opening of the Jacksonville State Hospital the Elgin institution was opened and one year later that at Anna. This definitely committed the state to the care of the insane, but accommodations were woefully inadequate; quotas were assigned to each county and when these were exceeded the quiet and chronic cases were returned to the poor farms. The contrast between the state and poor farm care was very great and it was somewhat disconcerting in those days to have a patient request that he might be included in the next lot of patients to be returned to the poor farm. Some patients preferred the informal life and greater liberty of the poor farm to the more restricted regimen of the state hospital. At that time there was much discussion of plans for boarding out the chronic insane. The results at Gheel, Belgium, were studied and many able administrators advocated a similar plan or modifications of it to meet the needs of the constantly increasing numbers of the chronic insane. Of late years comparatively little has been heard of such discussions, but a cursory survey of the masses of humanity now crowded into our state hospitals would lead one to think that a revival of them might be advantageous.

The rapid growth of the population in Cook County soon necessitated special provisions for the increasing number of insane. About 1840 a stone building was erected just north of the oldest building now on the grounds of the Chicago State Hospital. It was popularly known as the Cook County "crazy house." It was a building of three stories. The first floor was for the confinement of the more violent patients who were kept in rough hewn stone cells. The doors of these cells were of heavy wrought iron strips with an upper opening for handing food to the patient and a lower opening to rake out

the straw and offal. Four of these cells were left after the building was remodeled and they were in use in my time to confine intoxicated and disorderly persons on the grounds of the Cook County farm until they could be taken to the village lock-up.

In 1879 when the writer was appointed interne at the Alms House there were then about 300 insane and about the same number of paupers cared for on the county farm which was officially known as the Cook County Alms House. A few years before that time the building which is still in use—now the oldest structure at the Chicago State Hospital—was constructed and some definite organization of the insane department was instituted including the appointment of a full-time medical superintendent. Prior to that period the medical care of both the insane and paupers had been under Dr. Fonda, a practitioner living in the Village of Jefferson, who made periodical visits to the poor farm. The first medical officer, if my recollection serves me correctly, was Dr. Tope who had charge not only of the insane but of the sick and infirm on the poor farm. This arrangement was continued for many years until the infirmary was established at Oak Forest and the paupers were removed from the Dunning farm and the latter was devoted solely to the care of the insane.

In 1879 the writer was appointed an interne at the Dunning institutions. The then superintendent and an assistant physician constituted the entire medical staff for the care of the insane and the sick paupers. The conditions on the poor farm were not very different from what they were throughout the state. The population of the poor farm was a curious admixture of imbeciles, idiots, delinquents, infirm, and incurable patients with chronic disorders. There were two very large buildings; one for men and the other for women. In a general way they resembled enormous barns with few partitions and of one story. The women's department contained about all the beds that could be conveniently placed on the floor, and under the beds and beside them were the personal effects of the inmates. They sort of kept house in this barn. It included a considerable number of families. While there were separate buildings for the men and women there was no practical separation of the sexes. They had the freedom of the grounds

and the social life of the institution was on a free and easy plan. A considerable number of children were born in the institution whose mothers were feeble minded. One woman in particular had four children, all born on the county farm, and they were a remarkably handsome lot which were shown to visitors with great satisfaction by the mother. They varied in color from a dark mulatto to a splendid blonde child with golden hair, then about four years old. This situation did not seem to attract any special attention or call for comment; it was just one of the things that would naturally inevitably happen in any well regulated poor house.

In the Spring of 1880 when the writer visited the poor farms of the east tier of counties of the state, the conditions were found practically the same with the exception that the number of inmates in Cook County was larger. This poor farm population was an interesting study composed of imbeciles, insane, incurables, and those who by reason of age and infirmity were unable to care for themselves. In many of the counties the care was fairly adequate, but in all of them there was a pronounced mingling of the sexes and illegitimate children were born and raised on the premises. In one county 11 insane persons were found huddled together in a comparatively small building under the charge of a demented patient. One demented girl was found tied by the ankle to a post with a comparatively long rope which admitted of her moving about over an area of about 12 feet. At the time of my visit she was six months advanced in pregnancy. The conditions that were found at the time of this investigation duplicated those which were described by Miss Dix 30 years before. Such conditions prevailed all over the state at a time when Illinois was opening its fourth state hospital for the care of the insane.

In the Fall of 1879 the writer was appointed the first assistant physician of the Eastern Hospital for the Insane located at Kankakee. Dr. Richard Dewey was its first superintendent, who was then organizing a staff preparatory to opening the hospital for the reception of patients. This institution was a wide departure from the accepted notions prevalent at the time regarding institution architecture. The prevailing style was a linear building with connecting wards flanking a main or administration building. The

general plan of such structures was outlined by the American Association of Superintendents of State Asylums for the Insane. It was known as the Kirkbride plan, which minutely described the general arrangement of such structures, the size of the rooms, the width of corridors, and other details. It was further advised by the Association that the proper limit of size for any institution was 250 patients, though in some cases this number might be exceeded by 100. Kankakee was planned on quite different lines. There was a concession to the old form of building but it was designed to care for 500 patients, a portion of whom should be in detached wards or cottages. It was freely predicted that Kankakee would be a failure from an administrative standpoint. It must be admitted that the difficulties in the early days of the institution were considerable. One of the more noticeable was the difficulty of communicating with different parts of the institution as there were no telephones. There was one compensation in the fact that the staff was afforded abundant opportunity for exercise in the open air. Those who are familiar with modern methods of administration can hardly conceive what a handicap it was to have buildings widely separated with no means of quick communication. If one desired to get in touch with the superintendent he had to be hunted up and it was a matter of guess-work as to where he was. A clumsy substitute was to write a note and have it delivered by a messenger. In those days there were no typewriters and everything had to be written by hand. In the writer's three years of service at Kankakee letter writing, which at first was a bore became toward the close of his service a nightmare, and probably had much to do with his leaving the state service. The hospital was lighted with gas which was a constant source of worry. Much spare time was spent trying to devise a gas fixture that would serve a useful purpose in lighting the institution and not furnish a convenient point of suspension for a patient to hang himself. Many patients exercised a devilish ingenuity in turning on the gas without lighting it. Cold storage was still a thing of the future, and the problem of providing fresh vegetables during the winter months was considerable. Scurvy required constant vigilance, but it was very soon met by putting down large quantities of sour-kraut

which furnished not only a palatable addition to the winter diet, but a very efficient one in combating the scorbutic tendency. Notwithstanding these difficulties Kankakee soon became one of the most talked of institutions of the country, and we entertained many visitors from our own and foreign lands.

Restraint was then widely accepted as a disciplinary and therapeutic measure in American institutions for the insane. In October, 1879, the writer visited the Utica State Hospital and saw a restraint room whose sole furniture was 10 heavy wooden chairs bolted to the floor facing 10 other chairs on the opposite side of the room.

In each chair a patient was strapped. The noise in this room beggared description. The patients were straining at the straps, pounding the floor with their feet, and striking the arms of the chairs with their fists. Passing through this room out onto the grounds he found the medical staff playing lawn tennis, the first time he ever saw this game. In other eastern institutions while the question of restraint was not so dramatically portrayed as at Utica, yet it was held by the staff of these institutions that it was not only necessary from a disciplinary standpoint in the administration of the institution but it was salutary in the treatment of mental cases. In the year that he was appointed to Kankakee, the writer had secured a copy of Conley's work on "Non-Restraint in the Treatment of the Insane." These, together with the reports of the Morningside Asylum, convinced him that mechanical restraint was not only harmful in the treatment of the insane but was simply, from the administrative standpoint, a substitute for good management. After many conferences with his chief it was finally decided to see how far we could go in limiting the application of restraint. Accordingly, all of the restraint apparatus was gathered up and taken to the office. When a call came the writer would gather up the cuffs and straps and hurry to the wards. When he reached there the emergency was generally over. When the restraint was first taken from the ward, the attendants were convinced that nothing but difficulty was to be anticipated and they believed that they were in positive danger in not having such means of coercion at hand. The calls were very frequent in the first few days, but gradually they became less. It was soon apparent that

the whole situation would be solved by educating the attendants who early realized that there were better methods of dealing with restless and unruly patients. As a result of these somewhat tentative and hesitating efforts instances of restraint became comparatively rare and toward the close of the writer's service in the institution he had succeeded in carrying his wards along for a period of eight months without a single instance of restraint, when its application was compelled by a restless patient with a broken leg.

Employment early engaged the attention of the staff. A ward report was instituted by which there was a daily statement of the activities and labor of each patient. Every patient who could be persuaded into any sort of activity was provided something that he could do. At that time there were no shops, but the ordinary domestic activities of the institution and farm work constituted an available means of getting the patients interested in some sort of employment. In those early days we probably had a higher proportion of patients actively employed than has been achieved in any of our state institutions since that time.

The personnel of the institution was of a high order. The attendants were of a high character, the most of them recruited from good families. Their faithfulness and intelligence was, I think, equal to if not better than any that I have seen in institutions since that time.

I feel safe in affirming that the physical care of the patients at Kankakee during the early days of the institution was as good as it has been at any time in the last 40 years. Our patients were clean; they were well clothed; they were well fed. When they were sick they were cared for as well as they could have been in a private house without special medical equipment.

No medical histories were kept because there wasn't time and we wouldn't have known how to write them if opportunity had offered. The only record that we did keep was that for statistical purposes, which included age, religion, and the character of the disease, together with a statement as to how long the disorder had existed, and the diagnosis. The latter was simplicity itself. The patients that were depressed were said to have melancholia; those that were elated were suffering from mania, and a few had paretic dementia. An occasional diagnosis of

monomania was made, and in the first annual report I ventured to set down a patient as being hysterical, though I put the latter in quotation marks fearing the effect of such a violation of the canons of psychiatry.

The literature available was slender. I had a copy of Pritchard's work on insanity. It was practically a paraphrase of Esquirol's work and the first edition was published in 1835. A number of later editions were reprints of the earliest edition. The same year that Kankakee was opened Dr. E. C. Spitzka published his work on insanity, which is a great landmark in the progress of American psychiatry. He was of an insurgent type, who in the language of modern sabotage threw a monkey wrench into the psychiatric machinery of the times. For a quarter of a century the Association of Superintendents was a close corporation that arrogated to itself all knowledge and claimed to have the only practical experience in the care and treatment of the insane. The leading spirit in this organization was Dr. John P. Gray, Superintendent of the Utica State Asylum. It took Spitzka but a short time to topple his nestorian dignity in the dust. At my visit to Utica in 1879 I for the first time and the last looked through a microscope and saw the pathological cause of insanity. The first pathological laboratory was established at that institution. The brains of insane were hardened in alcohol and introduced into the largest microtome that I have ever seen. It was about the size of a common kitchen sink with a well of sufficient size to hold an entire human brain. The specimen was moved upward by a micrometer screw and sections were made of surprising thinness and rather cleverly stained. These were mounted on large plates of glass, placed in the field of a microscope which was about the size of a small telescope, and with this instrument one could see certain changes most pronounced in the cortex of the brain, which Dr. Diecke said were characteristic appearances found in the brains of those who were insane. It remained for Dr. Spitzka to demonstrate that the appearances described were produced by the alcohol in which the brains were preserved. This controversy was probably the most acrimonious and in a way interesting row that ever occurred in the ranks of American psychiatrists. The writer was too young and inexperienced to take an active part

in the center of the controversy, but he did what he could to add to the excitement from the side lines. His first medical paper was a joint one with Dr. Henry M. Banister on "Restraint and Seclusion in American Institutions for the Insane," published in 1882.

It can safely be asserted that the institutions for the insane in the State of Illinois were the equal of any of those in the country and this obtained from the time they were established until 1892. During a period of 32 years, extending from 1860 to 1892 there had been a continuity of management. The tenure of office of superintendents, assistant physicians, and the internal management of these institutions was very little interfered with by political considerations. In 1892 there came a change. Another political party was in power and of necessity had to displace the old officers by adherents to the then prevailing political faith. Then followed a period of decadence; one bad administration was succeeded by a worse one. The internal management of these institutions deteriorated. The interests of the patient were forgotten, care takers, attendants, engineers, assistant physicians and superintendents were appointed solely because of their political affiliations. Deplorable consequences followed. The institutions passed under the management of superintendents who had no knowledge of psychiatry and no interest in medicine. What brief distinction they acquired was as superintendents. When they passed from the stage of these executive duties they went into oblivion. Very few of the medical officers of that time ever were heard of after they left the state service. In the early period were a number of men who have since achieved an enviable distinction in their chosen calling. Among these I may mention Richard Dewey, Ludwig Hektoen, and Adolph Meyer.

A decade and a half rolls by. One bad administration succeeded by a worse one until things finally got so bad that a reorganization was inevitable. It came. A definite tenure was given the employes of the institutions below the grade of superintendent. The misfortune was that the latter were not included. In any event, while a junior officer could not aspire to be a medical superintendent, unless perchance he happened to be in political favor, nevertheless, the state institutions offered an opportunity for a

career. For the medical officers there was a chance to learn. If the superintendent happened to know something of psychiatry and be a competent medical man, that was all to the good, but if he wasn't the assistant superintendent was competent to carry on the work. Histories began to be written, staff meetings were held, and a new spirit was put into these institutions.

As I survey the present and the most distant past of my experience, I fail to see any very marked improvement in the care and treatment of the insane. In the early days it was essentially custodial; it is much the same today. The maniac depressives recovered, the paretics died and the dementia praecox group remained with us even as now. It is true that we did not call them by the same names, but I doubt very much if the labeling of these groups has added anything to the recovery rate. I would not have you draw a pessimistic note from these remarks. I would not want it to be understood that the 40 years have been devoid of progress. To some extent we have marked time, but that is inevitable in the progress of all scientific inquiry. As the Irishman said, progress is "steady by jerks." There have been slowly gathering knowledge in other fields that will have a most important bearing on the welfare of the insane of the future. Many branches of inquiry are contributing; psychology, physiology; chemistry, physics, and soon with these additional aids clinical methods will be perfected in our state hospitals which will accomplish all that can humanly be done for the mentally disordered.

If I had my medical career to begin over again I would not wish to go back to the year 1879, but if some good fairy would touch me with her wand and bring me forth young and active from the medical school in this year, knowing what my previous existence had been, I would again enter a hospital for mental cases confident that I would see many of the vexing problems that now confront us solved before I should be gathered to my fathers.

A SERIOUS STATEMENT

"Eating too much is bound to shorten your life," observed the Doctor.

"That's right," agreed the Farmer. "Pigs would live a good deal longer if they didn't make hogs of themselves."—Cincinnati Enquirer.

THE PRESENT SITUATION RELATIVE TO THE CARE AND TREATMENT OF NERVOUS AND MENTAL DISEASES IN ILLINOIS*

LEWIS J. POLLOCK, M. D.,

CHICAGO

"It is painful to reflect on their former treatment, caged in iron gratings and exhibited for money! Treated as wild beasts are, they necessarily became like them, or worse! Devils in revenge and evil, satans in deceit and delusion! Or if any portion of the man remained, think of the spirit writhing in agony or sinking with despair within them! All this and more, in some despotic countries even now exists; and in how many places are they not still made to drink the bitter cup of neglect and coldness, contempt and cruelty." "And in regards to pathology in general * * * the subject of insanity should never be excluded, but ought, in my opinion, to hold the first place; in point of importance it is so and sure I am that hereafter it will be found the very basis of medical knowledge, though it has hitherto been thrown into the rear and studied less than any other department of medicine, nay more than this, until lately it has been rather shunned as a disreputable part of our profession, and some of those who have lately written upon it have not written in a way to exalt either themselves or it in the estimation of sensible men."

Almost a hundred years ago these words were written by Dr. M. Allen of England. In 1894 Dr. S. Wier Mitchell delivered the annual address at the semi-centennial meeting of the American Medico-Psychological Association in Philadelphia. His remarks may be summed up as a vigorous arraignment of the asylum methods of that day: "We have done with whip and chains and ill usage and having won this noble battle have we not rested too easily content with having made the condition of the insane more comfortable?" In the case records of that day he found no evidence "of blood counts, temperatures, reflexes, the eye grounds, color fields, all the

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minute examinations with which we are so un-restingly busy."

We are concerned tonight with again pointing out the deficiencies of that splendidly isolated step-child of medicine, the neurologist. Does anyone remember the occasion when it was felt necessary to criticize, upbraid, guide and encourage a surgeon, even an orthopedic surgeon? Has it been necessary to point out the shortcomings of an internist, to increase their armamentarium of therapeutics, their researches, their publications? On the contrary, it has been necessary to beseech them to moderate their prolific output.

The diseases of the brain offer as ready an approach to investigation as diseases of any other organ. They are as frequent, as important, as disabling, as many other diseases. If diabetes mellitus occurs in 1 per cent. of the population and elipepsy in $\frac{1}{2}$ per cent. then the investigation of epilepsy should occupy the medical profession one-half the time devoted to diabetes, and I venture to predict that when this occurs with modern methods, we will approach the solution of the cause and cure of this disease.

A description of the present status of the care and treatment of nervous and mental diseases in Illinois can be based adequately only upon a thorough and comprehensive survey. Of course, the very modest description I will attempt is based only on a few available bits of information. This information is hearsay. It is not admissible as evidence. Often it may have been modified by the exigencies of the situation, a protective attitude, evasion, reservation, a glossing over of facts. Some of the information was obtained from previous surveys and may today be incorrect by virtue of subsequent changes. Again, what I may describe is from my viewpoint and it may not represent an accurate picture of the situation as seen through the eyes of others. I have always felt that public institutions have been made political scapegoats. Not much benefit has accrued from pointing out that in such an institution there was a shortage of fifty beds, or in another only a broken microscope, or in still another an example of brutality. The problem of the care of nervous and mental diseases deals with far more fundamental conditions than these. I propose to briefly name the facilities for the handling of such cases and in some in-

stances stress some facilities which we do not have.

There are approximately 18,500 insane individuals in the State Hospitals for the Insane. There are about 5,000 feeble-minded, epileptic, and incorrigible individuals in the state institutions. This makes a total of 23,500 institutional cases.

In a survey of Nassau County, New York, 1,592 mentally abnormal individuals were found, constituting 1.37 per cent. of the total population. Of these 946, or 0.82 per cent. of the entire population were judged to require institutional care. Computing the cases in Illinois on this basis 52,977 cases require institutional care. Obviously our institutional facilities are inadequate.

There are eight institutions for the insane in Illinois. It is admitted that there is marked over-crowding. A very small part of this over-crowding may be due to the closure of hospitals treating alcoholic and drug addicts. Within the next six months a total relief of about 500 beds will be available. Obviously there is a shortage of physicians. It is said that great difficulty exists in getting physicians into the service, that they are not recruited from the best schools. Their training in psychiatry consists of necessarily short courses given by the State alienist and the precept of the older men in the service. Staff meetings are held in some of the institutions only. It is said that if the salaries be increased to conform to the wages of bricklayers and carpenters some of the difficulty might be removed. Suitable quarters would offer an added inducement. There seems to be a lack of assurance of definite material advancement. Obviously, the uncertainty of permanency of occupation as the result of political upheavals is not attractive. The lack of contact with medical centers and the apparent routine character of the work are additional factors which seem to be correctable. Compulsory internships in general hospitals and greater inducements of Federal service have had an effect upon the number of physicians in these institutions. There are no medical directors in these institutions. Hospital wards are a part of many institutions but frequently house the infirm and feeble. There are no full time laboratory men. Any research work which may be done is produced under adverse conditions and under pressure of other work. The serologic

work is performed at the State Psychopathic Institute. One element of stimulation is the Illinois State Hospital Medical Service Bulletin, issued by the division of the Alienist.

Nurses and attendants are insufficient in number and only about 50 nurses have had competent psychiatric and general training. There is a State school of psychiatric nursing offering three courses to women with proper qualifications, one a standard hospital course of three years, a short course of four months for senior students at general hospitals and a post-graduate course of six months for general hospital graduates.

The State Psychopathic Institute has a Director and a staff of an extramural pathologist with a technician, a serologist and a chemist. Recently the research work has been held somewhat in abeyance awaiting the completion of the new hospital buildings of the medical department of the University of Illinois. We have thus far seen that there is a lack of room, a lack of physicians, a lack of medical directors, laboratories, full time pathologists, qualified trained nurses and contact with medical centers. These faults are not the faults of the institutions, they are our faults. I know from personal experience how earnestly employes of institutions, physicians and nurses try to fulfill their duties under adverse circumstances. They do their job as well as they can. We do not give them the things to do it with.

In 1913, the Committee of Fifty published a pamphlet calling attention to the fact that there were 10,000 epileptics in Illinois and no provisions for them. They sought a colony for Illinois providing for two thousand or twenty-five hundred. Today there is an institution at Dixon and of all the patients only 190 are epileptics. There is no laboratory and as far as I know no immediate plan for one. No wonder the plan of voluntary commitment for epileptics failed! It is interesting to note in this connection that when the hospital for the insane at Columbia, South Carolina, was erected it was necessary to advertise in the newspaper for patients.

The Lincoln State School and Colony is occupied to its full capacity and it has been necessary to relieve its former congestion by the transfer of some patients to Dixon, which has likewise received some feeble-minded cases from some of the hospitals for the insane. Although the medical conditions in this institution are entirely

inadequate, it is only fair to call attention to the comments of Dr. Adler in his Survey of Cook County and the Mentally Handicapped, on the commendable energy of the staff of this institution and satisfactory system of education both in special classes from kindergarten grades up, in the gymnasium and in supervised recreation and in the trade shops.

In Cook County we have the Psychopathic Hospital, which constitutes the receiving service for the insane of this county. A rather important step forward has been taken in obtaining regular Cook County Hospital interns to serve three months internship in this ward. The present staff includes one superintendent, two resident physicians, one senior interne, three internes and consulting staff of six psychiatrists. The nursing service is at present as in the surgical and medical wards, under the charge of the Illinois Training School for Nurses. Weekly staff meetings are held. Two court days are now in effect. Perhaps an indication of what we do not have in this institution may be seen in the personnel of the Boston Psychopathic Hospital, with an admission of but half the number of cases. They boast of a staff consisting of a director, a chief medical officer, three executive officers who are physicians, three medical officers, four assistant medical officers, four interns, a chief of the out-patient department, two out-patient medical officers, a chief of psychological laboratory, a chief of department of therapeutic research, a chief of the biochemical laboratory, a roentgenologist, an adequate and highly trained social service department and an occupational therapeutic department.

There are three custodial institutions in Cook County, the County jail, the Juvenile Detention Home and the House of Correction, all receiving inmates either pending some other disposition or for comparatively short terms. Considerable progress has been made in the Juvenile Court procedure. The Institute for Juvenile Research has filled a great need in connection with the problems dealing with behavioristic difficulties in children. The staff of the Institute contribute to the examination of children of the Juvenile Detention Home. Other cases are sent by courts, hospitals, practitioners, schools, social agencies and some are voluntary. The social service investigates and gives social treatment to cases from the State Training School for Girls at

Geneva, the St. Charles School for Boys, the State School for the Feeble-minded, the Kankakee State Hospital, the Chester State Hospital and Joliet Penitentiary. It is concerned with a number of problems of investigative nature and some attention is given to teaching.

The group of reformatory institutions consists of the St. Charles and Geneva State Reformatories for juvenile delinquents and the House of the Good Shepherd.

What the Juvenile Court does for the County in the case of juvenile offenders under the age of seventeen in the case of boys and eighteen in the case of girls, the Municipal Court in its various branches does for juniors above that age. In connection with this court is a psychopathic laboratory which, because of some personal factors, holds an isolated position from other similar organizations.

Under the Department of Education there is a department of child study whose scope of work as outlined by the Board is very broad. There are about 120 rooms, each containing nineteen pupils devoted to the mentally deficient, and forty rooms devoted to behavioristic cases. Children with an intelligence quotient below 50 are not received. These constitute about 10 per cent of the applications. Of course, markedly deficient children are not brought to school at all. Children are taught from an industrial aspect as well as educational. The general aim is to put exceptional children back into the grades, it being desirable not to isolate them from the mass. The children are selected by the teachers in the grade schools, who after observing them for forty weeks may report them as exceptional. The mental examinations are conducted by the Child Study Department, the examiners being seven psychologists. They note in a general way the condition of the eyes, ears, teeth, etc. Physical examinations are made, as on normal children, by the Department of Health and nursing service is rendered by the Department of Health school nurses, none of whom are trained psychiatric nurses. No neurologic examination is made and a comprehensive medical examination is not feasible. No psychiatrists are attached to the department. It is said that about one-fourth of the cases so taught are turned back into the grade schools. Considerable discussion is warranted as to the necessity for psychiatrists, physicians, trained nurses, trained social service workers,

and the underlying principles of the feeble-minded.

There is no provision for the registration of feeble-minded in the State of Illinois. No idiot is capable of contracting marriage.

Some small private non-institutional agencies, as the Orthogenic Clinic of Rush Medical College, exist. In some cases the work is excellent but too isolated to perform materially important service.

It is again impressed upon us tonight that we have an Illinois Society for Mental Hygiene which serves the public in educational and propaganda work in mental health.

Social service is rendered by all institutions of the State. Out-patient clinics are held in Chicago and similar facilities are afforded some of the other districts of Illinois. These clinics are held in Chicago once a week and in Jacksonville every two weeks. There is a social service department of Cook County which serves the Psychopathic Hospital, the patients released or paroled from the Lincoln State School, the courts, the County jail, etc. Social service work is conducted in relation to neurological clinics in Chicago. So-called social work in some of the clinics and dispensaries consists large of clerical work which might be done by a \$75.00 a month stenographer. For the most part the social workers in these clinics and dispensaries have no special training in psychiatry.

There are no facilities in Chicago for training psychiatric social workers.

Despite the fact that many forms of insanity are distinctly medical problems and amenable to treatment, there are no psychiatric wards in any of our general hospitals.

In the City of Chicago may be found some so-called "rest cures" for the treatment of mental disorders. In most instances these rest cures consist of an old, abandoned residence containing a number of beds. Although these institutions receive a license from the Department of Welfare, there are no requirements as to the personnel, no medical staff need be resident and the only requirement insisted upon is the facility for affording comfortable and kindly attention. It would be as logical to license special hospitals for the treatment of diabetes and require a staff consisting of any person who is kind and humane, with no laboratory facilities, no competent nurses, and no physicians. There are in the

State a number of private sanatoria which are licensed by the Department of Public Welfare and from which quarterly reports are received. The only requirement in effect, for license, is that they treat their patients humanely, and it is expected that they will conduct an ethical practice. Not more than five years ago one such institution sent circular letters to relatives of patients in State Hospitals soliciting their patronage, with promises of cure.

In none of these institutions is there a minimum requirement of equipment, nursing staff, nurses training or medical staff. None of these institutions are graded as are the general hospitals of the country.

When a physician calls for the services of a nurse to assist in the care of a mental case it is found that many nurses sign against such cases and such nurses as may not be called upon as frequently as desired to care for general cases accept such service. There is no registration of psychiatric nurses or careful notation of special training.

Within the last few years the importance of teaching psychiatry has been recognized in our medical schools. Very frequently, however, a good deal of this teaching is left to chance. Some of the schools have a minimum requirement of psychiatry training. Clinical facilities for the teaching of psychiatry, particularly as related to mental deficiency, and behavioristic defects are wanting. There remains a considerable lack of coordination in the teaching of nervous and medical schools of Chicago I know of no scholarships or fellowships which have been offered mental diseases. Speaking of two of the larger in neurology, I know of no physician who because of the inspiration of his own school has turned to neurology in the last ten years. Opportunity for research in the schools of medicine in the field of nervous and mental disease is conspicuous only by its absence. In every school may be found a large number of undergraduates and fellows working in the departments of anatomy, bacteriology, physiology, medicine and surgery, but the work in neurology occurs only in the aforementioned departments or does not occur at all.

It is my firm belief that it is to this part of the situation as to the care of nervous and mental cases that the greatest scrutiny must be applied, and that the development of the needs of the

community hinges upon the education of the physician. A member of the sub-committee on mental hygiene of the Institute of Medicine has very aptly put it that "a school which cannot develop its own neurologists and psychiatrists has no use for existence."

25 East Washington Street.

DISCUSSION OF THE PAPER'S OF DRs. MOYER, POLLOCK AND SINGER.

DR. CHARLES F. READ: While I have been particularly interested in one of the papers presented this evening, I will say that I have listened with pleasure to Dr. Singer's discussion to which I can add nothing, and have also listened with great interest to Dr. Moyer's excellent account of the care of the insane as it was in Illinois some years ago. While I know Dr. Moyer has kept in close touch with what has been done in regard to state care of the insane since he left institutional practice, I still feel that he has perhaps left us with an impression that is somewhat too pessimistic in its coloring.

While I have no quarrel whatever with Dr. Pollock's statement of conditions as they are today, and while it would ill become me as a member of the Department of Public Welfare to offer any apology for present conditions, still it might be well to point out to you a few of the hopeful conditions and accomplishments in the care of the institutional insane in Illinois during the past eight or ten years.

For instance, when I entered the service at Kankakee in 1909, even though in Dr. Moyer's time they did away to a great extent with restraint, it was not uncommon to see fifteen or twenty patients laced up in straight jackets upon a single ward. At the present time, there is no restraint in the State of Illinois. It was officially done away with a number of years ago.

As successor to Dr. Singer, I have carried on to further development the work that was begun during his time, notably in occupational therapy. For many years—in fact, as long as the institutions have existed—the insane have been industrially employed. However, only those who are willing, who have the energy to occupy themselves independently with a minimum of supervision, are thus employed. Under this new phase of therapy we are keeping some 3,000 patients occupied who because of their apparent stupidity were formerly allowed to sit about idly. They are doing something now; they are being trained and brought back to some extent to the ordinary decencies of life and to its more routine interests. This, of course, requires a corps of workers trained, and untrained in each institution.

So, too, with social service much has been accomplished. Here in Chicago we have in the department at the Chicago State Hospital a chief worker, with four or five assistants who make thousands of calls each year upon the homes of paroled patients as well as the homes of patients who are still in the institution, but who are worried about affairs at home. They take care of little legal matters, they investigate prior

to parole to see if the home is a fit one, with a doctor they hold clinics each week in some part of the city, etc., and this same work is done all over the state to a greater or less extent. While we carry not a great many more out upon parole than we used to, they are receiving better care because they are supervised to some extent, and the public is being better protected. A patient is returned to the institution if he is not doing well or we are fearful he might do some actual harm.

Recently I have been investigating the mortality rate from tuberculosis in our state institutions, thinking it would be a good argument for more buildings, if I found there were more deaths from tuberculosis on account of overcrowding, but to my great surprise I found the death rate much lower than it used to be. Errors have crept into these statistics no doubt; some cases that formerly were signed out as tuberculosis are probably now signed out under other causes. *But along with that for tuberculosis the general mortality rate is falling.* Tuberculosis pavilions in the last ten years have been established in practically every institution of the state. Only one at the present time is lacking and that is right here in Chicago.

Over 3,000 beds have been added in the last ten years—1,000 of these for the feeble-minded—not enough I grant, but a very considerable number at that. At Elgin a hospital ward has recently been opened that would do credit to a town of ten thousand, and at Alton another similar one is about completed.

Just last year a building was constructed for ex-service men at Elgin, housing 200 patients. One is under construction at Jacksonville of the same character. The Veterans Bureau is training these men in different ways.

You perhaps know of the hospital block that is being built at the Cubs Park in connection with the University of Chicago. In time it will house the Psychopathic Hospital and afford means of training students in psychiatry and for research along this line.

If you wish to interest doctors in psychiatry, I would suggest that you get behind a bill requiring the subject of psychiatry to be placed in the state board examinations. At the present time students naturally do not take psychiatry very seriously. Such a bill goes into effect in Massachusetts this year.

Nurses training schools have their place in every hospital. Unfortunately we do not get enough pupils, but we are doing everything we can to get them. We have not as many doctors as we should have. I have been doing my best for many months to fill up the ranks so far as salary funds would permit. It has been hard to get them, although the salary includes maintenance, thus making the pay really better than what the average bricklayer gets.

I do not know how we will get more money for our institutions unless we have a bond issue as has been done in an eastern state recently. If we have bond issues for good roads, why not have bond issues for good minds. That seems logical.

These institutions are your institutions. They are medical institutions and I ask you to take an interest

in them. If things are not going right step in and help us to make them right.

DR. LEWIS J. POLLOCK (closing): Dr. Read need not offer any apology because I stated distinctly that the staffs of the State Institutions have put forth a Herculean effort in caring for the inmates with what imperfect facilities and inadequate staffs they possess. The physicians of the state institutions are as competent and as conscientious as physicians engaged in general practice but additional facilities are necessary for good service.

I do not mean to say that no progress has been made. Much progress has been made but it has been largely of an institutional character whereas advancement of an investigative character is necessary.

METAPHYSICAL MEDICINE

OR

TWO THOUSAND YEARS OF FAITH CURES

W. A. HINCKLE, M. D.

PEORIA, ILL.

Since first the finger of time began recording the aims and deeds of men on the pages of history, two omnipresent desires have possessed him; viz, to prolong his life and to relieve his sufferings.

To attain these much desired ends he has resorted to two classes of measures or medicines, physical and metaphysical. His physical medicines have consisted of such material things and methods as directly affected the body, e. g., food and drink, heat and cold, manipulations and massage, drugs and electricity, and many others. His metaphysical medicines have consisted of prayer, sacrifice, exorcism, penance, charms, amulets, faith cures, laying on of hands, anointing with oil, and such methods as affected the body only indirectly, if at all.

Whether physical or metaphysical medicines were used depended largely upon the prevailing theory as to the cause and nature of disease. In ancient times when man was prone to attribute all things he could not understand to supernatural causes, he looked upon sickness, disease and death as due to the anger of the gods, or machinations of the devils.

This theory of disease was almost universally accepted. It is taught in the Bible, was accepted by Jesus and his apostles, affirmed by Popes, theologians and ecclesiastics for more than a thousand years. It was firmly believed by Martin Luther, John Calvin, John Knox, and other leaders of the Reformation. Even so late as the

eighteenth century, John Wesley, the founder of Methodism, treated the sick by trying to cast out devils through prayer.

Devils were supposed to produce disease by acting upon the victim from without, either directly or through a third party known as a witch; or he entered the individual and worked from within. Entrance was usually effected through the mouth with food, drink or the breath. The latter was especially apt to occur if one slept with his mouth open. To avoid this catastrophe, exorcists, when casting out devils, were always careful to keep their mouths closed.

Charles II of Spain, who died A. D. 1700, never went to sleep without his confessor and two friars in the room with him to protect him from demoniacal obsession.

Various methods of exorcism or casting out of devils were tried during the long centuries in which this form of metaphysical medicine was in vogue. Sometimes the offending devil was commanded in the name of Jesus to come out; again the exorcist tried to humiliate the demon and shame him out by calling him foul and disgusting names—this, on the theory that pride was one of the chief characteristics of devils. As a last resort, torture, even burning at the stake, was used, hoping thereby to inflict suffering on the evil one.

For more than a thousand years after the beginning of the Christian Era, such metaphysical medicine was the prevailing method of treating the sick, and many were the supposed cures that were offered as proof of the theory that disease was due to angry gods, wicked witches and dirty devils.

The priests, supposedly having special influence with Diety and being the avowed opponents of devils, naturally became the recognized healers of the sick. The few who sought to cure disease by physical methods were discouraged in ways most emphatic by priest and church.

However, with increasing intelligence, devils became less numerous and powerful and finally, ceased to cause disease. Then exorcism made way for other forms of metaphysical medicine. Shrines and holy places became the great healing agencies. Objects that had been intimately associated with some holy person or place were supposed to partake of their virtues. So, such things as oil from altar lamps, water from sacred

springs and bones of saints became possessed of healing virtues.

Especially efficacious were those relics brought back by pilgrims and crusaders from the Holy Land. Wood and nails from the cross of Christ; blood and tears of Jesus and Mary; toe nails of St. Peter; links of the chain which bound St. Peter and St. Paul; and many other such sacred relics were plentiful throughout Christendom. Many and marvelous were the cures claimed for them.

In the days when this form of metaphysical medicine was in flower, there was in Europe enough wood and nails from the cross to have built a chapel. There were literally barrels of the blood of Jesus and Mary. There was more than a bushel of toe nails of St. Peter. Numberless were the links of the chains that bound the Apostles. There were no less than eight different thigh bones of the Virgin Mary in eight different cathedrals in Europe.

Of all the healing shrines and holy places once pervading Christendom, only three retain some of their ancient healing virtues. These are, St. Anne in Quebec and Lasalette and Lourdes in France, and cures at these grow less with the passing of the years.

The story of Lourdes, the greatest of the shrines, is typical. In the year A. D. 1858 Bernadette, a 14-year old child was playing amid the quarries in the little village of Lourdes in France. She saw, or thought she saw, a beautiful woman who smiled at her. In the next few months Bernadette saw the apparition 18 times. On several occasions it spoke to her. No one else saw the vision or heard the voice, though others were with the child when she saw and heard. Then other unusual things occurred. Several sick people drank of the spring that was there and were cured. The wondrous news was broadcast. Lourdes became famous. The curious, the sick, the afflicted came, and still come, more than a quarter of a million annually. A few of the sick are cured. Most of them are not. Catholic authorities claim only about four thousand authentic cures among the more than ten million pilgrims who have journeyed there in fifty years. One cure for every twenty-five hundred persons who visited the shrine. Of course not all the visitors were sick, so we do not know the percentage of cures. Lourdes is the one place of its kind where those in charge appar-

ently have made some effort to verify the results, and avoid exaggerations. Hence, the relatively small number of cures.

Coincident with holy relics and sacred places was another form of metaphysical medicine. The sacred person of the King or Queen possessed in a measure the healing virtues of other sacred things. So, for seven hundred years the kings and queens of England and France were reputed to cure by the royal touch, such diseases as kings' evil or scrofula, and falling sickness or epilepsy. The efficacy of this treatment was not only implicitly believed by the masses but was affirmed by privy councils, by bishops of both the Catholic and the Protestant churches, and by the University of Oxford. The last person to be so treated was Dr. Samuel Johnson, who when four years of age, was touched by Queen Anne. The treatment in his case was a failure, and that which had been gradually falling into disrepute was abandoned entirely. In its day of grace many were the cures wrought by the royal touch.

But people will have their little superstitions. As increasing intelligence emasculated the cruder forms, new varieties of metaphysical medicine took their places. Enter then the divine healers. These were for the most part pious men and sincere, who proved by the Scriptures that prayer, laying on of hands and anointing with oil are all-sufficient for the relief of human ills. Hundreds of such healers have had their brief and brilliant day.

Prince Hohenlohe (1794-1840) was probably the greatest divine healer of recent centuries. A priest and devout man, he had implicit faith in the power of prayer. Among his early cures was a princess of the house of Schwarzenberg. The prominence of the patient, as well as that of the healer, gave him great notoriety and instant fame. The sick came to him from all Central Europe and many were they who professed a cure. He is said to have treated 18,000 people the last year of his life.

In America, one Francis Schlatter, an Alsatian priest, wrought many similar cures. Gifted with a countenance much like the traditional features of the Christ, he wandered barefoot and barehead through the Western country. Many sick received his blessing and proclaimed themselves cured. After forty days fast and purification, he went to Denver where he ministered unto thousands from over all the U. S. Of these many claimed

to be cured. After Denver his healing powers grew less and he soon passed from the public eye.

Another divine healer was John Alexander Dowie. Proclaiming himself the reincarnation of Elijah and the restorer of true Christianity, he founded the Christian Apostolic Church. In a booklet entitled, "Doctors, Druggists, and Devils," he reaffirmed the old Biblical teachings that demons produce disease, and that prayer and the laying on of hands is God's method of cure. He gathered thousands into his fold, who bore witness of his healing powers. Then the Devil of disease called him at the age of sixty.

Contemporary with John Alexander Dowie was Mary Baker G. Eddy, the founder of Christian Science. She began her career as a patient and disciple of Quimby, the noted mental healer. Later she modified his theories somewhat. As a healer she seemed to have been a failure though she taught many who were more successful than she. Like many other metaphysical healers, Mrs. Eddy proclaimed her teachings were in harmony with, and complementary to the Bible. Her theories of disease, however, differ materially from that of other systems of healing based on Divine Revelation.

She denied the existence of all the physical world, consequently of the physical body and its disorders and dissolution, known as disease and death. She also denied the reliability of the physical senses which tell us that these things do exist and are real. The things we see, hear, feel, taste, and smell, she affirmed, are but delusions of a mysterious something she calls mortal mind. While emphatically denying the reality of sickness and death, Mrs. Eddy sickened and died, much younger than many who believe in the reality of these things.

By denying sickness and death and affirming health and life, thousands of Christian Scientists claim to have been cured of divers delusory diseases. Yet to date, they have not been able to demonstrate the truth of their theory that the physical world is not real by living without or above it; or even to prove that sickness and disease are delusions of mortal mind by living longer than the average span allotted to man.

Other forms of metaphysical medicine, not based upon religion or the Bible, were co-existent with the divine healers. Mesmer (1733-1815), a German physician, conceived the theory that disease is due to alterations of the animal mag-

netism which he supposed pervaded and animated the body. Cures were effected by making passes with his hands over the patient's body, thus drawing off the bad magnetism. His theories appealed to the popular imagination. Multitudes flocked unto him and many professed being cured.

His services were in such demand that he could not give all who came his personal attention, so they were treated by his valet, with results little less remarkable than those of the master.

Mesmer went to Paris where the multitudes received him gladly. Here he built his wonderful magnetic trough. It was some thirty feet in diameter and contained ground glass and iron filings. Around the trough sat the sick. Each held with one hand one of the thirty handles attached to the trough, and with the other hand made magnetic connection with the adjacent patient. A dimly lighted room, burning incense, and low soft music, completed the equipment. After a while the sitters felt a magnetic current creeping up their arms and pervading their bodies, i. e., some of them did. Then they passed into a magnetic sleep or a cataleptic state from which they awakened freed from their disability, i. e., some of them did.

So great became the popularity of Mesmer and his methods that the king appointed a joint committee from the Academy of Science and the Faculty of Medicine of Paris, to investigate and report on this wonderful new form of medicine. On this committee was one, Benjamin Franklin, who knew a few things about electricity and magnetism. After five months of investigation and deliberation, they reported that there was no evidence of any magnetic action or effect, and whatever cures there were, were due to imagination and not to magnetism. A similar report was made by the Berlin Academy of Science. After publication of these reports, Mesmer was no longer able to produce his once marvelous results.

Mesmer's most famous pupil, Marquis de Purysegur, simplified his master's technique. He magnetized a tree, and those who sat beneath its spreading boughs were subjected to its healing aura and were cured, i. e., some of them were.

About this time a Connecticut Yankee, Elisha Perkins by name (1741-99), invented a wonderful instrument known as the Perkins'

tractor. It was made of gold and silver, iron and brass. In shape it was somewhat like a pair of calipers. By passing this unique instrument over the sick he drew from them the bad magnetism and so cured their disease. So marvelous were his results that the Society of Friends built a hospital known as the Perkins Institute where the poor sick and afflicted were demagnetized and remagnetized a la Perkins.

Came then another Yankee who made a tractor of wood with which he produced results equal to those of Perkins. Exit Perkins and his tractor.

The interest created and the results obtained by Mesmer and his followers led Dr. Braid (1795-1860), an English surgeon, to investigate these and similar phenomena. After much study and experimentation, he advanced the theory, now generally accepted, that the cures, sleep, and cataleptic state produced by mesmerists were in no wise due to the so-called mesmeric passes and supposed magnetic aura induced, but were due entirely to the state of mind induced in the subject. By having the subject fix his eyes and attention on some object held slightly above the normal line of vision, and by telling him firmly, gently and repeatedly, that he was going to sleep, Braid succeeded in inducing conditions and cures similar to those produced by Mesmer. This method Braid called hypnotism.

So we might continue at great length showing that every age has had its metaphysical medicine and healers. After making due allowance for deception, exaggeration and misinformation, we must admit that all these multifarious methods have cured many and failed on more. All of them have offered their cures as proof of the truth of their theories.

But, do cures prove the healer's theories? Did the cures made by exorcists prove that disease is due to devils? Did the cures made by Mesmer prove that sickness is due to disordered animal magnetism? Did the cures made by Dowie prove that he was the re-incarnation of Elijah? Do the cures made at Lourdes prove that the Virgin Mary actually appeared and talked to Bernadette? Do the cures made by Christian Scientists prove that the patient was not really sick and that matter, disease and death are but delusions of mortal mind?

No, cures neither prove nor disprove the theories of the healers. The cures prove only

this: The patient recovered. All the discredited and discarded forms of metaphysical medicine show that the theory need not be true in order to produce results, for all have cures to their credit. Many were they who once were cured at the tomb and shrine of St. Rosalie at Palermo. Nor did these cures cease till long after Professor Buckland, the eminent osteologist, declared these sacred bones were not those of the good woman, but were those of a goat.

These facts only emphasize the observations of Paracelsus made centuries ago, that it matters not if the object of one's faith be false or true, the effect upon the worshiper is the same. In other words, the results come from inside and not from outside the worshiper.

How can we explain these similar cures and antagonistic theories of the various forms of metaphysical medicine? The answer is to be found in the power of suggestion over the mind, and the influence of the mind over the body. Suggestion as here used is anything that influences the mental attitude of the individual. The things we see, hear, feel, taste, and smell, all suggest to us, all help to determine our state of mind.

That the mind in turn affects the body is a fact well known, though often overlooked and underestimated. Examples of such are everyday experiences. Embarrassment causes the cheeks to flush and fear causes them to pale; grief fills the eyes with tears and joy transfigures the face; fright causes the limbs to tremble and the body to shake; excitement makes the heart flutter. Various mental states influence appetite and digestion, produce headaches and insomnia, and affect the bodily functions generally.

These results are transitory if the mental state inducing them is transient. But just as such temporary mental causes produce temporary physical results, so, also, prolonged mental states produce prolonged or chronic alteration in bodily function. Chronic beliefs, fears, griefs, hates, and other emotions are undoubtedly responsible for many chronic disorders; yet the patient may be entirely unconscious of the mental cause of his disease, or even of the existence of the mental cause.

The subconscious mind is the store house of our chronic emotions. Deep in its fathomless depths lie buried emotions and memories long suppressed and apparently forgotten. Nature

stores them there to relieve the tension on the conscious mind; but they still exist. As Professor Bergson says: "All our past life is there, preserved even to the most infinitesimal detail, and that we forget nothing, and that all we have felt, perceived, thought, willed, from the first awakening of our consciousness survives indestructibly."

Unrecognized by us these indestructible subconscious memories and emotions act and react continuously upon our bodies, through the sympathetic or involuntary nerve centers, producing disease or promoting health. Various scientific methods of utilizing these hidden forces have been developed which are devoid of the supernatural and the superstitions, and do not resort to silly sophistries or pseudo-scientific explanations.

At Nancy, France, has grown up a great institution devoted to scientific metaphysical medicine. Here, under the supervision of able physicians, cures have been wrought through the influence of the mind, that are analogous in all important particulars to so-called supernatural cures.

Here hypnotism has been investigated and developed, and through it much light has been thrown on the subtle workings of suggestion over mind and body. Briefly, hypnotism is an induced state of passive attention in which the subject's consciousness, reason, judgment and will are diminished and his imagination and susceptibility to suggestion correspondingly increased. The variation of these mental functions from the normal depends upon the stage of hypnosis. This may be so slight that the subject is vaguely conscious of what transpires, or so deep that he is oblivious to all.

In hypnosis the subject's consciousness, reason, judgment and will being diminished and his imagination and susceptibility to suggestion increased, he more readily believes what he is told. Tell him he is a dog and he accepts the suggestion and acts like one. Tell him he is sick or well and he believes, feels and acts accordingly. If sufficiently impressed upon him, the suggestion will continue to influence his mind and body even after he is no longer under the hypnotic spell.

Hypnotism is one method of making a strong and lasting impression on the mind. It is a way of circumventing reason and judgment, which

normally stand like sentries at the threshold of memory and determine what may enter there.

As might be suspected, suggestion bolstered by supernatural claims, supported by Scriptural quotations or ecclesiastical authority, will also make profound and lasting impression. These also sometimes circumvent reason and judgment by claiming superiority over them. This is why those forms of metaphysical medicines which have a religious flavor have usually been more popular and effective.

But regardless of the theory advanced or the method employed, all forms of metaphysical medicine produce their results through the power of suggestion over the mind, and the influence of the mind over the body.

That some of the results following physical methods are due to suggestion is recognized by all physicians. But no physical medicine can long endure that depends on suggestion alone for its results. Countless such have had their day and now lie buried with the many metaphysical fads in the junk heap of discredited delusions. And still there are more to follow. When the last goat gland and patient have been grafted, other forms of physical suggestion will arise and attempt the impossible. But surviving the vicissitudes of time and change, certain physical medicines still give the same good results today as they did a thousand years ago.

From this same town of Nancy came Coue who recently attracted much attention in America. He is but one of a great number of metaphysical healers who, by various methods, call out the latent powers of the mind. Reared in the psychic atmosphere of that place, Coue absorbed the theory and developed a method of self or auto-suggestion, that makes no claim to the supernatural or the miraculous. By tying twenty knots in a string, and by saying night and morning, once for each knot, "Day by day in every way I am getting better and better," the patient repeatedly suggests to himself and thereby makes a more lasting impression on his subconscious mind.

Not being versed in scientific medicine, Coue makes many absurd and impossible diagnoses and exaggerated claims of cures. Like all exclusively metaphysical healers, he claims too much. He mistakes a part of truth for the whole of it.

Herein lies the secret of the passing of all the

great galaxy of metaphysical healers and methods that momentarily have lighted the therapeutic sky. They see the great truth that the mind influences the body and sometimes produces disease. But they fail or refuse to see the greater fact that the body influences the mind, or the still greater fact, that environment or the external world influences both body and mind, and is responsible for most of human ailments. If you doubt that the physical influences the mental, just try to concentrate when you are cold or hungry, or have a headache or are sick at your stomach.

That most human ills are of physical origin should be evident to any who will but investigate. That all accidents and injuries are of physical origin can hardly be denied. That all infectious and contagious diseases are of physical origin has, and can be, demonstrated beyond cavil by any one with sufficient scientific training to follow scientific experiments. If to accidents, injuries, contagions, and infections, we add those conditions clearly due to exposure, dissipation, and unsanitary and unhygienic living, we have by far the majority of human ailments, all due to physical causes.

That physical methods should be the basic treatment for all disease of physical origin seems obvious. To treat a broken leg, a decayed tooth, a rotten appendix or any infection or inflammation, by purely metaphysical methods would be as absurd as to treat grief, disappointment, fear, or heartache with powders or pills.

It by no means follows that metaphysical medicine is entirely valueless in diseases due to physical causes, or that physical medicine is of no avail in conditions of metaphysical origin. Most diseases, especially those which have become chronic, are a complex of both physical and metaphysical disability. One becomes engrafted on the other, thus becoming a secondary cause which aggravates the primary condition. Many diseases may be benefitted temporarily by either metaphysical or physical medicine; but only by removing the cause can the patient be cured.

Modern scientific physicians do not object to metaphysical medicine, but to metaphysical doctors who try to deny and disregard the necessity for physical medicine in physically caused conditions. As a matter of fact, all these so-called physicians are inconsistent. Even the most radical do not disdain the services of surgeons, dentists, oculists, and undertakers. Their in-

ability to diagnose, and reluctance to report contagious diseases, and their tendency to avoid quarantine makes the average metaphysical healer a menace to the community.

Knowledge of disease is indispensable to all who presume to treat the sick by any method. One cannot know the value of any method of treatment who cannot diagnose, and who does not know the course a given disease will probably run, and its termination if left untreated.

Before we can know the value of our treatment in a sore throat, we must know if the disorder is merely a simple inflammation or is a diphtheria. If it is a simple inflammation, in practically all cases, it will run its course and get well in a few days even if left untreated. If it is diphtheria, it will run a different course and about 30 per cent. will die if not properly treated. If under antitoxin or any other treatment 90 per cent. instead of 70 per cent. recover, and if all run a milder course under such treatment, then we can justly claim that the treatment cured 20 per cent that otherwise would have died, and benefitted all of the 90 per cent. But no such claim can truthfully be made unless one can diagnose.

Similarly one must be able to differentiate a cold on the chest from pneumonia; a chronic bronchitis from tuberculosis; measles from scarlet fever; chickenpox from smallpox; and so on all down the list, if one is to know the value of any line of treatment. Such conclusions must also be based on a large number of cases to obviate the possibility of chance.

Statistics, based on accurate diagnosis and unbiased observation of results, are to be had only from medical sources. The various cults that proclaim miraculous results base their claims for the most part on mere conjecture. They offer no accurate statistics, and their inability to diagnose, and their ignorance of the natural course of disease, precludes any possibility of such reliable information.

Statistics show that about 90 per cent. of all acute sickness will ultimately recover even if left untreated, but that a still higher percentage will recover in a shorter time and with fewer complications if properly treated. Thus we see that any method of treatment, however worthless, should show at least 90 per cent of cures in such cases. This natural tendency of the body to recover when sick or injured has enabled many

worthless forms of metaphysical as well as physical medicine to get by for a time. What wonderful possibilities for much reputation with little or no merit! What a fertile field for ignorance, deception and quackery!

No more striking demonstrations of relative merit could be asked, than a comparison of the results of modern physical medicine during the last hundred years, with the previous two thousand years of metaphysical healing.

Under the various forms of metaphysical medicine that dominated the therapeutic world for more than twenty centuries, plagues and epidemics devastated the land. Malaria killed its thousands and typhoid slowly burned to death its tens of thousands. Smallpox spread like a prairie fire over the earth, depopulating cities and devastating the country side. Yellow fever paid its annual visit to the tropics reaping its frightful harvest of death. Cholera swept the earth like a typhoon, leaving death and disaster in its trail. Time and again the black death, now known as the bubonic plague, inundated the land like a great tidal wave and struck terror in the hearts of the human race. In the fourteenth century it broke out in China, killing sixteen million. It followed the caravan route from China to the West. It passed through Asia Minor and all of Europe, leaving a trail marked by the bones of twenty-five millions in Europe alone.

In vain all the arts of metaphysical medicine were tried during the course of the centuries in an effort to eliminate these ever recurring epidemics. In spite of prayers and sacrifices, of charms and amulets, of penance and exorcisms, shrines and holy places, the laying on of pious hands and anointing with holy oil, in spite of persecuted heretics and burning witches, the demon of disease still roamed the land at will. The earth was one vast charnel house and one-third of all children died before two years of age.

Came then, modern scientific physical medicine. In less than a century it discovered the physical cause of these frightful diseases and banished them from civilization. It discovered and eliminated the mosquito as a cause of disease, and malaria and yellow fever are now less feared than the early frost. It learned the secret of their source, and now smallpox and cholera and the black death are far less fatal than automo-

bile accidents. In all previous wars, typhoid was more deadly than sword and cannon, but in the latest and greatest war fewer died from this than died from fright.

For centuries, Cuba and the Philippines were pest holes of disease and death; and in Panama, the death rate was so high that the French, after spending millions, were compelled to abandon the partially completed canal. In less than a quarter of a century, under modern physical medicine, these countries have been freed from epidemics, and America built the Panama canal, with a death rate less than that in New York City.

In less than a century physical medicine has reduced the infant death rate more than one-half, and has added ten years to the life of the average man. All this in spite of the statement of one of the most noted metaphysical healers that where there are more doctors and more thought given to sanitation, there is more disease and death.

What think you wrought these modern miracles? Were they brought about by belief in those antiquated theories, that disease is due to angry gods, wicked witches or dirty devils? or to that more modern sophistry that would have us believe that the physical body, with all its reactions to heat and cold, hunger and thirst, sickness, disease and ultimate death, are but delusions of mortal mind? or to that more modern method of self-kidding, which teaches us to say, "Day by day in every way we are getting better and better" whether we are or not?

No! History fails to record one plague that has ever been stamped out, one epidemic that has been eliminated, one pest hole made fit for human habitation, any reduction of infant mortality, or any increase of human longevity, made by any form of metaphysical medicine, at any time or place.

So to answer the age old question that has been asked for thrice a thousand years, how may we best prolong life and relieve human suffering, if we would not deceive ourselves we must say: Seek ye first the physical cause of disease, for so long as we lead a physical life with a physical body, in a physical world, most diseases will be of physical origin and respond best to physical treatment.

Of course, we must recognize and utilize the influence of the mind over the body. But we

must not forget the greater influence of the body over the mind, or the still greater influence of environment or the external world over both body and mind. We do well to lift our eyes unto the skies, and to study the stars, but we must keep our feet firmly fixed upon the solid ground. If we would safely sail the uncertain metaphysical seas, we must direct our course by the stars of reason and experience, or we must keep in sight of the land of demonstrated facts.
629-30 Jefferson Building.

A PEDUNCULATED WART SIMULATING RENAL CALCULUS

HILLIER L. BAKER, M.D.

CHICAGO

The report of a tumor mass simulating a renal calculus shadow has been previously made.¹ The following case is thought to be of interest because of the location of the pseudo-calculus:

Mrs. B. C., aged 57 years, entered the Presbyterian Hospital, January 2, 1923, complaining of chills and fever, frequent painful urination and pain in the region of the left kidney.

Her temperature on admission was 101 degrees. Laboratory examination showed a white cell count of 14,800; hemoglobin, 56 per cent., and a red cell count of 3,650,000. The urine had a specific gravity of 1.022. There was a slight trace of nucleo-albumin and many leucocytes. Physical examination was negative with the exception of tenderness in the left lumbar region.

The history as to duration of the illness was vague. An x-ray examination was made to rule out a possible kidney calculus.

The following report was made: "Two dense shadows are present at the level of the third lumbar vertebra; one is oval in shape and 23 m.m. long—the other is somewhat triangular in form and is 1 c.m. wide at its broadest diameter." These shadows strongly suggest stones in the kidney pelvis.

The next day a kidney function test and ureteral catheterization was done by Dr. R. Herbst, with the following result: "Left kidney, twenty cells; right kidney, ten cells. Urine appears from right ureter in five minutes—from left ureter in twenty-five minutes. Phenolsulphonephthalein test showed elimination of thirty per cent. from right kidney in forty-five minutes

1. N. G. Alcock: Jour. of Roentgenology, 1918.

and ten per cent. from left kidney in the same time."

A shadowgraph catheter was passed and an x-ray taken; the report is as follows: "Film of January 3 shows catheter on the left, upward to the level of the dense shadow reported in previous examination. The tip lies mesial $\frac{1}{2}$ c.m." These shadows strongly suggest stones in the kidney pelvis.

The clinical and laboratory findings in this case were very suggestive of renal stone with in-



Fig. 1. Shadow of Pseudo-Calculus

fection. Our attention, however, was directed to a large pedunculated wart on the left lumbar region of the patient and of the possibility of it being the cause of the shadow seen in x-ray. Acting on this suspicion the wart was ligated at its base and removed. An x-ray was taken and the film showed an absence of the suspected calculus, the shadow of the ligature remaining.

The diagnosis of cystitis was made; the patient made an uneventful recovery, being discharged from the hospital January 14, 1923, much improved.

SOME CONSOLATION

A rich man, lying on his death bed, called his chauffeur who had been in his service for years, and said:

"Ah, Sykes, I am going on a long and rugged journey, worse than ever you drove me."

"Well, sir," consoled the chauffeur, "there's one comfort, it's all down hill."

MEDICAL MEN DO NOT SEE THE TREND OF AFFAIRS

It is a strange thing that many medical men do not seem to see the trend of affairs as it pertains to the growth of the socializing of medicine. We are beginning to realize the dangers of the free service offered by hospitals and clinics supported by federal, state or municipal taxation, to say nothing of the free service given by various charitable or benevolent institutions, and we know that the scope of the public health service is branching out so that it more and more includes the work now done by the private practitioner of medicine. We also have noted the tendency on the part of large corporations and industrial concerns to furnish medical and surgical services free or at a very nominal cost to their employees, and now we learn that a movement is on foot whereby some of the Boards of Education will furnish free medical and surgical services to the attendants in our public schools. It is well for the medical man as well as the public to heed the sign, "Stop, Look and Listen." This Utopian dream of the socialistically inclined, if brought to a reality, is bound to end disastrously. It is not alone the question of self-preservation that leads medical men to oppose the insidious growth of these socialistic tendencies or an abiding faith in the principle. The paternalistic form of government toward which we are drifting never has and never will prove successful. The greatest advances have been made through independent individual effort, and whenever you create dependency and take away the incentive to work you in a large measure destroy productivity and real progress. Everything that is done to advance the socializing of medicine has aided in fostering dependency, and a loss of self-respect on the part of our people, to say nothing of destroying that incentive which draws some of the best minds into the study and practice of a science that requires something more than the machine-like activity of a salaried employee. Let us have an expansion of our facilities for medical education, a broadening of the requirements for medical practice, and suitable protection of the public against incompetency and knavery by protecting us from any scheme that will destroy individualism.—*Journal Indiana State Medical Association.*

ON POSTMORTEM AUTOLYSIS OF THE ADRENAL CORTEX

The adrenals of eighty patients were examined after death from various diseases. The authors concluded that, when the secretion was obtained within the first ten hours, degenerative changes did not take place in the adrenals, but that they did occur when autopsy was longer delayed. Seventy-five per cent. of the cases were of infectious disease, from which they infer that degeneration of the adrenal cells frequently takes place in infections, becoming manifest after death in an acceleration of the autolytic process, resembling that of the kidneys in cases of sepsis and of the liver in acute hepatic atrophy. The adrenals of children during the first months of life are singularly resistant to

postmortem changes. The statement so frequently repeated of late in the literature as to degeneration of the adrenals in infectious diseases plainly fails to take sufficiently into account the manifestations of autolytic pseudonecrosis, whereby the latter is liable to be confused with simple tissue necrosis, the more so since the two are very difficult to distinguish histologically.—E. J. Kraus and L. Lussig (*Virchow's Archiv für Pathologische Anatomie und Physiologie*, 1922, 237:265).

THE MEDICINAL STATUS OF ALCOHOL

Collier's for April 7, 1923, published an article by Samuel Hopkins Adams concerning what science has to say about alcohol, and brushing aside all sentiment in the matter and considering an analysis of facts, the following conclusions are given:

1. The use of alcohol as a beverage except in immoderate quantities does not tend to shorten human life.

2. Lacking sufficient human data, and insofar as biological experiments can determine, the offspring of a strongly alcoholized strain are distinctly and comprehensively superior to the same breed unalcoholized.

3. That alcoholized subjects (chickens) are almost invariably hardier, more resistant to disease than non-alcoholized.

The conclusions are based upon statistics and investigations made by Dr. Raymond Perl, who is one of the leading biological statisticians of the world, and is now connected with the Johns Hopkins School of Hygiene and Public Health. It is stated that Dr. Perl is not concerned with controversy or opinion except as it may affect evidence. He is concerned with ascertainable, demonstrable facts and reckonable probabilities. He is not a propagandist but a scientist, and, as Adams says, Dr. Perl's biological and statistical findings seem likely to modify radically the prevailing conception of alcohol as a physiological agent.

THOSE HARMLESS SHAFTS

In the March issue of the *Medical Sentinel* we ventured to classify as "harmless shafts" the digs that the medical profession has been receiving in the Hearst publications from one Paul H. DeKruif. Perhaps this non-pessimistic view was adopted by the writer thereof because of his natural disposition to take things with philosophy as they come. It may be that this attitude is not a wise one. Our good friend, Dr. O. E. Patterson, of Joseph, Oregon, takes exception to the attitude of the *Sentinel* as to the Hearst attacks. He says that all "these attacks have an effect. These things will have their reaction by the time the next generation of doctors come on, but in the meantime we have lost several dollars and much in disposition." The doctor thinks also that the physicians of the country should show more of a disposition to fight the enemy in the camp, and outside the camp. It is undoubtedly a fact that articles in the public press that contain misrepresentations of the work that is being accomplished by the medical profession, couched in

terms of sensational exaggeration, are working a direct injury to the community in general. They tend to exasperate the members of the profession, who see their falsity—see that the sensational tirades are written solely to secure a market for the writings, and to bring dollars to the coffers of writer and publisher. It is true that many a publication has no regard whatever for the truth of what it publishes, so long as it gets material that will please the groundlings and bring dollars to the publisher.—Editorial in *Medical Sentinel*.

Society Proceedings

OGLE AND LEE COUNTIES

A joint meeting and picnic of the Ogle and Lee County Medical Societies was held at Lowell Park near Dixon, July 26. About seventy-five members and their families were present to enjoy the open air entertainment.

Dr. W. E. Kittler, president of the Ogle County Society, made the opening address.

Dr. Edward Ochsner of Chicago, gave a very able talk on some problems in "Medical Economics."

Dr. E. S. Murphy of Dixon in his capable way spoke of the essentials in the "Treatment of Placenta Previa."

Dr. Dornblaser of Amboy, Dr. Sloan of Bloomington and Dr. Pennerman of Rockford also gave brief discussions on the preceding subjects.

Following the scientific program was a sports entertainment consisting of a ball game and foot-races.

The last and most important part of the program was a scramble supper arranged by the Ladies' Committee.

E. C. White, M. D., Sec.

PIKE COUNTY

The Pike County Medical Society met in Barry, July 26, 1923. After a fine chicken dinner, which Barry members know just how to serve, the Society adjourned to the G. A. R. hall and twenty-three physicians were found to be present. After reading and adopting the minutes of the last meeting, a memorial was read by the Secretary, commemorating the loss by death of six prominent members of the Society in the last several months: Doctors H. D. Fortune of Pleasant Hill, Dunne of Perry, Skinner and Watson of Griggsville, R. O. Smith of Pittsfield and Beavers of Barry.

A committee of Censors was appointed by the president, Dr. J. I. Doss and after thorough investigation, reported favorably on the candidacy of Dr. L. H. Davis of Perry who was unanimously received as a member.

Dr. H. P. Beirue of Quincy then read a paper on "An Account of My Stewardship." This paper took up at length the legislative problems which have confronted the Illinois physicians for the last several years and which have been solved by the

passing of a satisfactory Medical Practice Act.

The Councilor also touched upon a number of related subjects, which sooner or later, must receive attention, not only from the Societies but the public, as well.

Dr. Hardesty of Hannibal, Mo., a guest of the Society, then read a very scientific and critical paper on "Intussusception."

Dr. Carl Black of Jacksonville read a very comprehensive and scholarly paper on "Some Complications of Appendicitis." He prefaced his paper by some narratives of amusing as well as pathetic interest.

Dr. W. E. Shastid of Pittsfield spoke on "An Ocular Procedure of the South Seas," being the narrative of some eye-methods of the semi-civilized tribes of the South Pacific.

Dr. W. F. Reynolds of Barry then read a carefully prepared paper on "Constipation," which received much discussion from members present.

The Society then adjourned to meet in Milton at the next regular session.

William E. Shastid, Secretary.

Marriages

FLORENCE MAE FOWLER, Chicago, to Mr. Emmanuel H. Kuttner of Lombard, Ill., August 4.

JESSE ROBERT GERSTLEY to Miss Adelaide Frances Kohn, both of Chicago, July 25.

JACOB ROSCOE HARRY, Chicago, to Miss Helen Louise Hurley of Mount Carroll, Ill., July 28.

HERBERT PAYNE MILLER, Rock Island, Ill., to Miss Glea M. Gray of Portage, Wis., June 30.

ANDREW DANIEL SCHICK to Miss Lemma Horne, both of Chicago, July 18.

Personals

Dr. Ralph McReynolds has been elected president of the Blessing Hospital, Quincy.

Dr. Pierre A. Steele has been appointed medical director of the Macon County Tuberculosis Sanatorium, Decatur.

Dr. Joseph Springer, who recently resigned as coroner's physician, has been reappointed physician in charge of murder investigations.

Dr. Hertha Kraus, commissioner of public welfare, Cologne, Germany, is visiting in Chicago to study welfare conditions here.

Senior Surgeon Otis B. Mallow, U. S. Public Health Service, Washington, D. C., has been appointed officer in charge of the U. S. Veterans' Hospital No. 30-A, Chicago.

Dr. William Schoeneshofer, Streator, has been appointed a member of the board of the

LaSalle County Tuberculosis Sanitarium to serve for three years.

Dr. James P. Johnston has been appointed health commissioner of East Moline, to succeed Dr. Henry J. Love, who was recently drowned in the Mississippi river.

Dr. Henrietta A. Calhoun, Rockford, has been appointed lecturer in bacteriology and histology at Rockford College, and director of the laboratory at the Rockford Hospital.

Dr. Frank L. Alloway has resigned as chief of the eye, ear, nose and throat service at the U. S. Public Health Service Hospital No. 76, Maywood.

Dr. Furstman has resigned as director of health and hygiene of Peoria schools and has accepted a similar position in Los Angeles.

News Notes

—At the annual meeting of the Chicago Urological Society the following officers were elected: Dr. Joseph S. Eisenstaedt, president; Dr. Harry B. Culver, vice-president, and Dr. Thomas F. Finegan, secretary-treasurer.

—Harry F. Shepard and S. J. Pole, according to reports, were arrested August 8 for practicing medicine without licenses. Shepard and Pole are barbers during the day, but in the evening are "doctors" with offices at 3108 Madison street.

—The board of education in East St. Louis has appropriated \$5,000 for the establishment of medical inspection of pupils in the public schools during the coming season. According to reports the personnel for doing the work has not yet been chosen.

—Nearly 15,000 persons attended the dedication ceremonies of the Lutheran Memorial Hospital, Chicago, August 12. The hospital is a memorial, erected at a cost of \$700,000, to Lutheran soldiers who died in the World War. A tablet containing 100 names was unveiled. Dr. George H. Schroeder, Chicago, has been named chief of staff at the hospital.

—During the first half of this year fifty-one well baby conferences were held under the direction of the state department of public health and fifty more are scheduled. Announcement was made that a number of requests for professional assistance at baby conferences has been turned down because the schedule of the medical staff available is completely filled.

—Mrs. Norman Bridge, wife of Dr. Norman

Bridge, professor emeritus, Rush Medical College, has subscribed \$100,000 to the fund for the Rawson Memorial Laboratory to be built on the west side. The fund donated by Mrs. Bridge will provide the Norman Bridge Pathological Laboratories which will occupy the fifth floor of the Rawson Memorial Laboratory.

—Announcement has been made that seven physicians have been appointed as district health superintendents on the field staff of the state department of public health. The newly-appointed men are among those dropped from the department medical staff July 1, because of a cut in the appropriation. Civil service ratings and efficient public health service records were the determining factors which governed the appointments, according to Dr. I. D. Rawlings, state director of public health.

—The Society of Medical History of Chicago is forming a collection of things of historic interest to the medical profession of this region. Two files of much historic interest are not complete and it is likely that some physicians in the state may be glad to put such of the lacking volumes as they may have in a place where they will have a permanent value. The lacking volumes are: Chicago Medical Journal and Examiner, 1880 to 1889 (Vols. 40 to 58), and Transactions of the Illinois State Medical Society, Vol. 5 (1855) and from 1864 to 1871 inclusive. Please send to Dr. George H. Weaver, Custodian, 637 South Wood street, Chicago.

—Dr. Ethan Allen Gray, superintendent of the Chicago Fresh Air Hospital, attended the annual tuberculosis conference at Santa Barbara, Calif., recently. At that conference, Dr. Gray was elected to serve on the board of directors of the National Tuberculosis Association. Mrs. Theodore B. Sachs, superintendent of the Chicago Tuberculosis Institute, and Miss Francis A. Cook, health crusade director for the Institute, also attended the conference. Mrs. Sachs read a paper on "Tuberculosis Among Nurses" and Miss Cook supervised the performance of her health play "Seven Keys," given by Santa Barbara school children.

—The American Roentgen Ray Society will meet in Chicago September 18 to 21, with headquarters at the Congress Hotel. A number of eminent foreign contributors will appear on the program, and the announcements indicate that

treatment by high voltage x-ray will have a prominent place on the program.

—At a recent meeting of the Central Illinois Radiological Society the following officers were elected: President, James H. Finch, M. D., Champaign; vice-president, Harold Swenberg, M. D., Quincy; secretary-treasurer, P. B. Goodwin, M. D., Peoria.

—The Physicians Fellowship Club of Peoria recently held an outing at the model dairy farm of Murray M. Baker. Senator Dailey was complimented by Dr. H. L. Pintler, president of the club, for his work in passing the new Medical Practice Act. Various practical jokes added to the enjoyment of the outing.

—It is said that a new "behavioristic" clinic will be established at Rush Medical College for the study of obstinate children on the plan of a similar clinic in Boston.

—The placement bureau of the Chicago Tuberculosis Institute is interested in finding positions for nurses and public health workers and supplying them where needed—not in placing tubercular applicants as stated in August JOURNAL.

Deaths

WILLIAM A. KIMMET, Oak Forest, Ill.; Northwestern University Medical College, Chicago, 1892; a Fellow A. M. A.; specialized in surgery; assistant superintendent to the Cook County Infirmary and Tuberculosis Hospital; aged 51; died, August 12, following an appendectomy.

CHARLES EDWIN BEAVERS, Barry, Ill.; Northwestern University Medical School, Chicago, 1899; a Fellow A. M. A.; served in the M. C., U. S. Army, during the World War; aged 55; died, July 18, at the Blessing Hospital, Quincy, of septicemia, following a carbuncle.

FRANK B. BRESSLER, Oak Park, Ill.; Rush Medical College, 1889; aged 59; died, July 30, of heart disease.

MARY ANN DEARLOVE, Oak Park, Ill.; Bennett College of Electric Medicine and Surgery, Chicago, 1888; aged 84; died, July 20 of embolism, following a fracture of the leg.

FRANK BERNHARDT FASTABEND, Chicago; College of Physicians and Surgeons, Chicago, 1905; aged 54; died, July 22, of heart disease.

EDWARD B. HOBSON, Jerseyville, Ill.; Rush Medical College, Chicago, 1867; aged 80; died, June 27, at Kansas City, Mo., of senility.

GEORGE EUGENE RICHARDS, Chicago; Hahnemann Medical College and Hospital, Chicago, 1879; aged 70; died July 29, of carcinoma of the stomach.

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TRI-STATE DISTRICT MEDICAL ASSOCIATION MEETING AT DES MOINES, IOWA Oct. 29-Nov. 1

Entered as Second-Class Matter July 21, 1919, at the Post Office, Oak Park, Illinois, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 15, 1918.

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ARTHUR W. ROGERS, B. S., M. D.

Physician-in-Charge

FREDERICK C. GESSNER, Asst. Physician

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Membership correspondence to Dr. Wm. D. Chapman, Silvis, Ill.

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Editorial

CENTRALIZATION AT POLITICAL HEAD-QUARTERS OF MEDICAL CONTROL

With the predatory methods of big business the practice of medicine will be forced to contend as soon as there is a federal bureau, or "Home Office" at Washington, D. C., a "General Office," at the state capital, and a "Branch Office" at the county seat, supplemented by a "General Agency" in the wards of cities and scattered through the smaller towns and hamlets.

When it is as nerve-racking as it is nowadays to get a passport out of Washington or to have your congressman clean up the mail congestion, mother will have a hard time with her labor-pains; baby will have a good chance for ophthalmia neonatorum and Johnny a warm prospect of getting over his diphtheria with medicine duly centralized. Of course, in these days the patient will not be allowed to choose his own doctor. Anybody the City Hall or the Ward Boss wishes to send out, the patient will have to take *or* die, or take *and* die, as fate and the juggle may decree. Successful doctors, like successful teachers, have cured though application of the personal element as an aid to therapeutic administration as well as to surgical efficiency. Legislation cannot destroy the personal antagonism between individuals. Russia has tried this recently, and it had been attempted before. With a plurality of powers retroverted to the state, the state becomes a monarchy.

Such retroversion inclines one to regard the "State as a curiosity and so assure the frame of mind of the anarchist who roared, 'the state?' Say, what the hell is the State?" Just at present highbrow performers think they are. So do subsidized parasites of "big business," and "Swollen fortunes," gluttonous robbers of the great middle class wearing the badge of honesty and carrying the side-door key to the counting rooms of the great and the near-great. Half the socialism in

the world is fed on scraps from the kitchens of those whom Socialism professes to hate; scraps that are begged and fawned for, and chewed with relish. And the other half of the Socialism in the world is starving to death.

The force of this will be realized when the Sheppard-Towner bill gets the health of the country under federal control. By that time there will be nothing worth fighting for.

After all, we are not ready to change the basis of our government from that of a union of sovereign states, each with its own fiscal system and independent political subdivision, to that of a much more dominant national government, with the states and their subdivisions as departments, subject to a highly centralized national control over state and local finances and to a large degree over state and local administration. In other words, are we willing to change our present democratic form of government to a bureaucracy or an autocracy? We are not prepared to plunge our national and local governments into a tangle of intertwined financial arrangement in which Uncle Sam will deal out to state and local government more and more funds to be disbursed by them not wholly without check against extravagance and inefficiency, and practically without responsibility, but actually in such manner as to encourage and stimulate local waste and unnecessary expenditures.

Beware of paternal legislation. The Sheppard-Towner and Smith-Towner trouble makers are examples of what is meant. This point is made because of the growing agitation for immediate extension into various fields of governmental activities (established and proposed) of a phenomenon of public finance popularly known as "Federal Aid."

Consideration of this subject is timely because of the measures put before the United States Congress and known as the Sheppard-Towner Maternity Bill, and the Smith-Towner or National Department of Education Bill and types of these measures in which granting of millions in new aids from the Federal treasury to the State government, is the main feature. These two paternalistic bills alone will practically double all the existing grants which now aggregate over a hundred and thirteen million dollars annually. These measures are pushed upon the people by their respective groups of enthusiastic proponents. They are only samples of a large group.

By the term Federal Aid, we understand an appropriation by Congress from the federal treasury of funds to be disbursed to the states, or to local institutions within the states generally through the agency of the state government, and to be used for the local conduct of some designated public activity. The chief condition attached to these state aid appropriations is that the state either alone or with its local governments shall expend for the specific function involved, at least as much money as it is to receive from the national government.

In actual practice this fifty-fifty plan has worked out very unsatisfactorily for the reason that federal supervision has invariably attempted to displace State supervision. As a matter of fact, every dollar appropriated by the government has carried with it the local control not only of the dollar appropriated by the government, but also of the dollar appropriated by the State. In other words, it tends to build up a bureaucracy in this country, and bureaucracy is the curse of every government that has allowed it to develop.

Initial appropriations or the fund to start one of these subsidies are simply the camel's head under the tent, for increasing appropriations each year. As an instance of the possibilities for growth in the field for federal subsidies to local government we cite the following by the honorable E. W. Ball, as Acting Secretary of Agriculture, showing the total federal fund available for co-operative agricultural extension work within the states to have grown since the taking effect of the Smith-Lever law in 1914 from \$2,111,350 to \$10,569,401 for the fiscal year 1920 and 1921.

The Sterling-Towner Bill to establish a department of education was planned to carry distributive funds of \$7,500,000 for education of illiterates over 14 years of age; \$7,500,000 for Americanization work; \$50,000,000 for general education; \$20,000,000 for physical education and \$15,000,000 for training of teachers; \$500,000 for departmental expenses. The Sheppard-Towner Maternity was planned to carry as a beginning distributive funds \$1,480,000 (\$4,800,000 was originally proposed), of which \$30,000 might be diverted for administration of the law by the Children's Bureau.

In recent years the main idea of the uplifters who proposed these paternalistic schemes is best expressed in the phrase "get the money." The character of the subjects and objects of such sub-

sidizing legislation has been a matter of secondary consideration. Uplifters in recent years have sown broadcast the propaganda of trying to cure all the ills of life both real and imaginary, by creating new bureaus in the department of National government in order to card-index the American people.

This dream-book form of government has increased taxes enormously. Today every theorist with a dream-book scheme wants a law passed to finance his or her own pet project, regardless of the mounting cost of governmental administration. To disabuse the mind of the taxpayer, the theorists begin casting about for that pot of gold at the end of the rainbow labelled "new sources of revenue," about which all public servants soon learn and which apparently they believe has been located at Washington.

What is to become of the taxpayer if paternalistic schemes continue to multiply and are enacted into law? He will be between the upper millstone of state taxes, and the nether millstone of local taxes, while a new creation—federal taxes for local purposes perches and gnaws at his vitals like a vulture. The two great agencies of our Republic, the National and the State, contributing two-thirds of the revenue locally expended, will have no control, no direction, no voice even over their own expenditures or in the local administration which they aid. Then what possible influence could they yield against extravagance? In no place of human endeavor can extravagance politically available be more dangerous than in the care of the public health.

There is another group of advocates of federal aid who do not object to federal supervision (so long as the financing pertains to the things they want done). This group would not object even to a degree of supervision revolting to Americans generally. Members of this group are the ones urging new projects, rather than seeking federal financing for well-established local function. The point of view is different, but the objections to federal aid in the latter instance are not less serious than in the former. Broadly the financial plan is that the Federal Government holds out a certain fund upon which the state may draw if the state will set up the required specific machinery to carry on the activity fostered by the federal act. This latter is a bribe to extravagance and again increases expense enormously. When applicable to health measures it makes of the pub-

lic health both as a community and an individual factor merely a predatory sacrifice.

This is precisely the situation that will exist with the so-called Sheppard-Towner Maternity Bill and its proposed companion State and Legislative measures. It was the realization of this fact that led us in Illinois to fight the Maternity Bills in our Illinois Legislature.

It is our observation that the private charity is generally much more efficiently administered than public charity; that it is not susceptible to political wire-pulling and abuse. Added to this we have never noted a public charity measure so lacking in saving limitations as these welfare endeavors of which the Sheppard-Towner matter is a shining example.

The Illinois Special State Health Insurance Commission in its report to the General Assembly in 1919 covered the problem of maternity and infant mortality somewhat fully. While it was found that even with the progress which had been made in reducing these death rates, improvement seemed desirable, the Commission recommended no specific legislation further than a special investigation of this field. Inasmuch as in most countries having maternity benefits, these benefits are a sort of public health insurance system and are upon more or less of an insurance basis, with the father or the mother or both as contributors to the fund, and inasmuch as the majority of the Illinois Commission recommended definitely against any form of State Health Insurance and minority concurred in refraining from recommending maternity legislation except a further investigation of maternity and infant mortality, it was inferred that the commission did not believe the remedy for these maternity evils lay in the direction of public benefit or free medical care for all mothers alike.

Christian Scientists, Illinois State Medical Society and the Civic Federation of Chicago stood together in opposition to operation of maternity legislation from Washington by a bunch of laymen. Especially when such legislation could have been done much better by the State itself. Objections were that such legislation paved the way directly for infringement of individual liberties in the exceedingly personal relations of the home, and perhaps for the sweeping aside by the State of strong personal convictions, religious and otherwise; that it was entirely unnecessary; that it favored "State Medicine," and threatened in-

terference with freedom of personal choice; that it was paternalistic and socialistic in character and would undermine the foundations of individual independence which has been the pride and backbone of American citizenry.

The Civic Federation of Chicago, the Bureau of Public Efficiency and other civic organizations of tax-payers oppose certain state legislation on the ground that it was unnecessary, unsafe and unguarded against abuse; that it proposed to cover a field already covered by private and public agencies and to set up a piece of machinery that would be costly to start and burdensome within a short time.

With this mass and line of opposition the General Assembly gave those bills little encouragement and even would have given them less had it not been for the cogent argument "Federal Aid."

Advocates of the propaganda and State Aid Bills used the following argument before the members of the legislature:

"The people of Illinois will be taxed for this fund; surely you will not deny your own people some of the benefits for which they pay."

The appeal, of course, is strongest to the less populated states because they will get more out of the pot than they put into it, but even in the larger states, the tendency is to go in with a despairing notion that they will get at least something out of the wreckage.

Fortunately at that time, a hope and not a definite promise was all that these agitators could hold forth, or the results in Illinois, in Massachusetts and in some other states might have been different.

Henry J. Harris, who is reported to be an advocate of "Federal Aid" at least as proposed in the so-called Maternity Bill, says of the Grants in Great Britain (maternity benefit systems in certain foreign countries, p. 68), "to describe the British System and to analyze the experience under it is an extremely difficult task; no other system of social insurance now in existence is so involved and contains so many features perplexing to the uninitiated * * * further, the statistical information published in the report on the operation of the system is so scanty that one receives little additional light from that source."

In the face of this mass of evidence from a nation that has labored under the problem of national aid for almost a century and with plentiful

indication that our own beginnings in the same field of finance are tending towards the same rocks and shoals, how can any sane executive officer or legislator with any sense of responsibility to the people favor or promote this propaganda of State Aid or State Medicine?

During the years of our development, accompanied by hardships and handicaps when the country was scarcely settled, when the people were much poorer than they are today, we got along with a comparatively simple system of finance. The federal government financed its functions, the State financed its functions and the localities, as they came into existence, financed themselves.

If our civilization has advanced to a point where the nation must do things which heretofore the states, counties and cities have felt competent to do; if the functions of local government are becoming so burdensome that they can no longer carry on the burden and wish to turn to the national government for aid, we want none of the muddle financing which has burdened Great Britain.

"The Federal Government should only appropriate for those interests which are purely of national concern and clearly within the purposes for which the federal union was established," said the Honorable Frank O. Lowden, Illinois' great and constructive War Governor, in delivering the convocation address recently before the University of Chicago, and in which he warns of the ambitions of Washington Bureaus and the dangers of Federal and state aid.

The Federal Government should not be called upon for help in local matters or public charities and supervision of the public health at a time when local governments are giving more attention to the latter than ever before, and when the privately organized agencies for charity are co-operating with one another and with the proper public agencies with results of efficiency never dreamed of in former days. In this field indeed, which includes pointedly the activities of the Sheppard-Towner Maternity Bill, the federal government should proceed most cautiously of all.

Philanthropy will not mix satisfactorily with public finance because the finance of philanthropy is on an altogether different footing from compulsorily collected rates and taxes. As American citizens we are not ready to relieve a man from the care of his family and himself either through

the wholesale grants in aid encouraged by the Sheppard-Towner Bill or by grants in "aid" of unemployment, which are otherwise proposed.

In Denmark for some time, and in Great Britain at present, through a system of "State Aid," men make more money being idle than they can by working at their trades.

In this field there is great danger of violating our great principle of taxation for public purposes only. It is more than a coincidence that in all this uplift legislation certain grants find their way to voluntary boards and managers. Part of our own grants for research work and treatment of venereal diseases go to privately controlled Universities. The Sheppard-Towner Bill carries a broad provision as to extension lectures on maternity hygiene which it is believed might authorize the payment of funds not only to private universities or institutions, but possibly to social settlements and the like.

The danger of unrestrained centralization of government, into which our nation is heedlessly plunging at present, was strongly emphasized by Floyd E. Thompson, Chief Justice of the Missouri Supreme Court, in an address on "Some Dangerous Tendencies in Government" recently delivered by him at the Stephenson County Old Settlers' Reunion. Mr. Thompson said:

Probably the greatest single menace to the continuance of our form of government is the tendency to abolish autonomy of the state and to establish in its stead an unrestrained centralized national government. In this country the fountain of all authority is the citizen. The individual is surrounded by the town, the county, the state and nation like so many concentric circles, and each in proportion to its nearness to the citizen was, by our fathers, invested with the greatest possible jurisdiction. Then and now, between the tyranny of centralization and the freedom of the citizen, stands the integrity of the state.

America must awake from its lethargy, he concluded, "or this hundred-headed bureaucratic monster will devour us." The breakdown of faith in the underlying principles of both government and conduct on the part of the people themselves he believed to be due largely to the substitution of frills and bric-a-brac in place of the teaching of the great classics, poets, dramatists and orators in the schoolroom. "While our fathers were not learned in so many branches as our present-day educated men, they were instructed in the origin

and history of human association and of human achievement." Religion, too, played a part in their education.

THE COMMITTEE ON MEDICAL HISTORY OF ILLINOIS.

In conformity with the report of the editor at the annual meeting in 1922, and again in 1923, and approved by the House of Delegates of the State Society, recommending the preparation for the Diamond Jubilee of the State Society in 1925, the history of the State Society and medical practice in the state since the incorporation of the society, June, 1850, the president of the Society has appointed a committee on medical history of the State Society as follows: Dr. O. B. Will, Peoria; Dr. Geo. A. Dicus, Streator; Dr. Carl E. Black, Jacksonville; Dr. Charles B. Johnson, Champaign; Dr. James H. Hutton, Chicago; Dr. Charles J. Whalen, Chicago, chairman.

Members of the profession having data in their possession that has a bearing on history of medical progress in Illinois will confer a great favor by loaning same to the committee. Data may be forwarded to any member of the committee; same will be duly acknowledged and returned to the owner if desired.

The profession will be interested in learning of the especial activities of the Society from its founding in 1850 until the beginning of the year 1925. Included should be the membership lists; the history of the parent and the district medical societies; publication; police duty and discipline; malpractice defense; a chronological list of officers, biographies of founders; principal officers and members of unusual prominence; meeting places during the progress of the years, and portraits of those who have carried the burden of keeping the Society up to its best capacities. Among the reproductions of historic and important documents should be one of the bill for a charter filed in 1850. None of these points should be overlooked. Many others will come to mind as the task progresses.

Members of the Society will be interested in learning how their organization came into being; who were its founders; what they were like; and what men and women, among the host of members from the inception of the Society until the present day, were most active in cherishing the Society and in forwarding its development. It is inspiring to trace the way in which the member-

ship has increased since 1850; the way in which the standing committees were organized and what they have accomplished; the relation of the Society to progressive health legislation—such as the founding of the first state board of health, and the medical legislation enacted, as well as constructive opposition to vicious medical legislation and the attacks on the Society by the quacks and other interests; the Society's survival of attempts at its disruption; and the objectives for which it has striven during its lifetime.

This history and scores of correlative details will be of interest to the profession and of value as a unit in the future history of the State of Illinois, the representative commonwealth of the Mississippi Valley. When the diamond jubilee arrives this record should be ready.

TRI-STATE DISTRICT MEDICAL ASSOCIATION.

AN INTER-STATE POST-GRADUATE MEETING

Des Moines, Iowa, Oct. 29, 30, 31 and Nov. 1, 1923.

All sessions of the general meeting and clinics held at the new Des Moines Women's Club Building.

Headquarters—Fort Des Moines Hotel.

First Day—Monday, October 29, 1923, 7 A. M.

1. Diagnostic Clinic (Medical). Heart failure, cardiac decompensation of any type.

Dr. G. Canby Robinson, Member of Medical Staff, Johns Hopkins Hospital, Baltimore, Md.

2. Diagnostic Clinic (Surgical). Thoracic and abdominal cases.

Dr. Evarts A. Graham, Prof. of Surgery, Washington University, Medical School, St. Louis, Mo.

3. Diagnostic Clinic (Medical).

Dr. James B. Herrick, Prof. of Medicine, Rush Medical College, School of Medicine, Chicago, Ill.

Intermission.

4. Diagnostic Clinic (Surgical). Fracture cases.

Dr. Frederick J. Cotton, Associate in Surgery, Harvard University, School of Medicine, Boston, Mass.

5. Diagnostic Clinic (Surgical). Stomach, gall-bladder and other abdominal cases.

Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Afternoon Session—1 P. M.

6. Diagnostic Clinic (Urological).

Dr. W. F. Braasch, Prof. of Urology, University of Minnesota, Graduate School of Medicine (Mayo Clinic), Rochester, Minn.

7. Diagnostic Clinic (Medical).

Dr. Charles P. Emmerson, Dean and Prof. of Medicine, University of Indiana, School of Medicine, Indianapolis, Ind.

8. Diagnostic Clinic (Surgical).

Dr. Frederick Atwood Besley, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Ill.

9. Diagnostic Clinic (Surgical). Abdominal cases, gall-bladder, ulcer, malignancies of colon or cecum.

Dr. John F. Erdmann, Prof. of Surgery, New York Post-Graduate School of Medicine, New York, N. Y.

10. Symposium, Northwestern University, Medical Department.

Supervised by Dr. Frederick Atwood Besley, Prof. of Surgery.

11. "The Mystery of the Abdomen."

Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Intermission—Review Exhibits.

12. "The Relation of the Circulation and Respiration." Dr. G. Canby Robinson, Member of Medical Staff, Johns Hopkins Hospital, Baltimore, Md.

13. "Operative Treatment on Fractures, Old and New."

Dr. Frederick J. Cotton, Associate in Surgery, Harvard University, School of Medicine, Boston, Mass.

14. "Purpura Hemorrhagica."

Dr. H. C. Giffin, Mayo Clinic, Rochester, Minn. Associate Professor of Medicine, University of Minn., Graduate School of Medicine.

15. Symposium, University of Indiana, Medical Department.

Supervised by Dr. Charles P. Emmerson, Dean and Prof. of Medicine, Indianapolis, Ind.

16. "The Present State of Arthroplasties."

Dr. William S. Baer, Associate Prof. of Orthopedic Surgery, Johns Hopkins University, School of Medicine, Baltimore, Md.

Symposium, Northwestern University, Medical Department.

Supervised by Dr. Frederick Atwood Besley, Prof. of Surgery. "Angina Pectoris."

"Angina Pectoris and Operative Relief"—Dr. William A. Holmes, Assistant Prof. of Medicine.

"The Sympathetic Nervous System and Bodily Pain"—Dr. S. Walter Ranson, Prof. of Anatomy.

"The Electro-cardiography of Angina Pectoris"—Dr. James G. Carr, Assistant Prof. of Medicine.

Evening Session—7 P. M.

17. Symposium, University of Iowa, Medical Department.

Supervised by Dr. Campbell P. Howard, Prof. of Medicine, Iowa City.

"Visceral Syphilis."

"Incidence of Visceral Syphilis in Iowa, with Especial Reference to Its Thoracic Manifesta-

- tions"—Dr. Campbell P. Howard, Prof. of Medicine.
- "Syphilis of the Digestive Organs"—Dr. W. E. Gatewood.
- "Syphilis of the Nervous System"—Dr. Clarence Van Epps, Prof. of Therapeutics.
- "Prognosis and Treatment of Visceral Syphilis"—Dr. F. H. Rohner, Assistant Prof. of Medicine.
18. "The Diagnosis and Treatment of Chronic Suppuration of the Lung."
Dr. Evarts A. Graham, Prof. of Surgery, Washington University, Medical School, St. Louis, Mo.
 19. "Practical Points Concerning Diagnosis and Treatment of Heart Disease."
Dr. James B. Herrick, Prof. of Medicine, Rush Medical College, Chicago, Ill.
 20. "What Progress Are We Making in the Treatment of Cancer?"
Dr. Byron B. Davis, Prof. of Clinical Surgery, University of Nebraska, School of Medicine, Omaha, Neb.
 21. "The Early Stages of Chronic Bronchitis."
Dr. Charles N. Meader, Dean and Prof. of Medicine, University of Colorado, School of Medicine, Denver, Colo.
 22. "Meeting the Surgical Indications of the 'Acute Abdomen by the Local Anesthesia Method.' (Lantern slides.)
Dr. Robert E. Farr, Minneapolis, Minn.
- Second Day—Tuesday, October 30, 7 A. M.*
1. Diagnostic Clinic (Orthopedic). Orthopedic cases.
Dr. Fred H. Albee, Prof. of Orthopedic Surgery, New York Post-Graduate Medical School, New York, N. Y.
 2. Diagnostic Clinic (Orthopedic). Joint diseases; sacro-iliac strains.
Dr. William S. Baer, Associate Prof. of Orthopedic Surgery, Johns Hopkins University, School of Medicine, Baltimore, Md.
 3. Diagnostic Clinic (Medical). General medicine.
Dr. William S. Thayer, Emeritus Prof. of Medicine, Johns Hopkins University, School of Medicine, Baltimore, Md.
 4. Diagnostic Clinic (Medical). (a) Kidney diseases (nephritis or infectious). (b) Blood diseases (anemia, leukemia, purpura). (c) Obscure eye cases (choroiditis, uveitis, etc.).
Dr. Oliver H. Pepper, Assistant Prof. of Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.
- Intermission—Review Exhibits.*
5. Diagnostic Clinic (Surgical). Abdominal, bone and nerve injury cases.
Dr. Dean Lewis, Prof. of Surgery, Rush Medical College, Chicago, Ill.
 6. Diagnostic Clinic (Dermatology).
Dr. Frank C. Knowles, Prof. of Dermatology, Jefferson Medical College, Philadelphia, Pa.
 7. Diagnostic Clinic (Surgical). Diseases of the thyroid; goiter cases.
Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn.
- Afternoon Session—1 P. M.*
8. Diagnostic Clinic (Diabetes). The Treatment of Diabetes Mellitus.
Dr. Elliott P. Joslin, Prof. of Clinical Medicine, Harvard University, School of Medicine, Boston, Mass.
 9. Symposium, University of Chicago (Rush) Med. Dept.
Supervised by Dr. Dean Lewis, Prof. of Surgery.
"Infections."
"General Infections and Treatment"—Dr. Dallas B. Phemister, Assistant Prof. of Surgery.
"Infections in Diabetic Cases"—Dr. Vernon C. David, Assistant Prof. of Surgery.
"Chronic Surgical Infections"—Dr. Arthur Dean Bevan, Head of Department of Surgery.
"Blood Findings in General Infections"—Dr. George F. Dick, Assistant Prof. of Medicine.
"Infections of Gastro-Intestinal Tract"—Dr. Clifford G. Grulee, Associate Prof. of Medicine (Ped.).
 10. Subject later.
Dr. Edward William Archibald, Prof. of Surgery, McGill University, Montreal, Canada.
 11. "Tumors of the Breast."
Dr. John F. Erdmann, Prof. of Surgery, New York Post-Graduate School of Medicine, New York, N. Y.
- Intermission—Review Exhibits.*
12. "The Symptoms of Nephritis, Their Bearing on Treatment."
Dr. Oliver H. Pepper, Assistant Prof. of Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.
 13. "Insulin and the General Practitioner."
Dr. Elliott P. Joslin, Prof. of Clinical Medicine, Harvard University, School of Medicine, Boston, Mass.
 14. "The Surgical Treatment of Ulcer of the Duodenum and Stomach."
Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn.
 15. Subject later.
Dr. William S. Thayer, Emeritus Prof. of Medicine, Johns Hopkins University, School of Medicine, Boston, Mass.
 16. Symposium "Diabetes."
Dr. Elliott P. Joslin, Prof. of Clinical Medicine, Harvard University, School of Medicine, Boston, Mass.
Dr. Louis H. Nedburgh, Ann Arbor, Mich.
Dr. Roland Turner Woodyatt, Associate Prof. of Medicine, Rush Medical College, Chicago, Ill.
- Evening Session—7 P. M.*
17. "Conclusions Drawn from a Series of 260 Cases of Gangrenous Appendicitis."

Dr. Willis D. Gatch, Prof. of Surgery, Indiana University, School of Medicine, Indianapolis, Ind.

18. Symposium, "Fractures."

"Pott's Fracture and Fracture of the Tarsal Bones."

Dr. William S. Baer, Associate Prof. of Orthopedic Surgery, Johns Hopkins University, School of Medicine, Baltimore, Md.

"Fractures of the Shoulder and Hip Joints."

Dr. Frederick J. Cotton, Associate in Surgery, Harvard University, School of Medicine, Boston, Mass.

"The Role of the Periosteum in the Repair of Fractures."

Dr. Leonard W. Ely, Associate Prof. of Orthopedic Surgery, Stanford University, School of Medicine, San Francisco, Calif.

"Complication of Fractures."

Dr. Dean Lewis, Prof. of Surgery, Rush Medical College, School of Medicine, Chicago, Ill.

"Colles' Fracture and Fracture of the Carpal Bones."

Dr. Kellogg Speed, Assistant Prof. of Surgery, Rush Medical College, Chicago, Ill.

"Operative Treatment of Recent Fractures and Non-Unions."

Dr. Hugh H. Trout, Roanoke, Va.

19. "The Relationship Between Dermatology and Internal Medicine."

Dr. Frank C. Knowles, Prof. of Dermatology, Jefferson Medical College, Philadelphia, Pa.

20. "Reconstruction Surgery."

Dr. Fred H. Albee, Prof. of Orthopedic Surgery, New York Post-Graduate Medical School, New York, N. Y.

Third Day—Wednesday, Oct. 31, 7 A. M.

1. Diagnostic Clinic (Neurosurgical). Neurosurgical cases.

Dr. Charles H. Frazier, Prof. of Neurosurgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

2. Diagnostic Clinic (Neurosurgical). Neurosurgical cases.

Dr. Ernest Sachs, Prof. of Clinical Neurosurgery, Washington University, School of Medicine, St. Louis, Mo.

3. Diagnostic Clinic (Medical). Pernicious Anemia.

Dr. Charles F. Martin, Dean and Prof. of Medicine, McGill University, Faculty of Medicine, Montreal, Can.

Intermission—Review Exhibits.

4. Diagnostic Clinic (Surgical). (a) Female children with chronic pyelitis; (b) kidney infection (tubercular or otherwise); (c) genital tuberculosis with lesions of the epididymis; (d) gastric ulcer, lesions of the gall-bladder; (e) fracture of the femur.

Dr. Hugh Cabot, Dean and Prof. of Surgery, University of Michigan, Medical School, Ann Arbor, Mich.

5. Diagnostic Clinic (Medical). Pneumonia, lobar and broncho.

Dr. Francis G. Blake, Prof. of Medicine, Yale University, School of Medicine, New Haven, Conn.

6. Diagnostic Clinic (Surgical).

Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

Afternoon Session—I P. M.

7. Diagnostic Clinic (Surgical).

Dr. Edward William Archibald, Prof. of Surgery, University of McGill, Montreal, Canada.

8. Diagnostic Clinic (Surgical).

Dr. Allen Whipple, Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

9. Symposium, and other contributions by Staff, Medical Department, University of Wisconsin. Supervised by Dr. George V. I. Brown, Milwaukee, Wis.

"The Development of New Arsenicals in the Treatment of Neuro-Syphilis."

Dr. A. S. Loevenhart, Prof. of Pharmacology, University of Wisconsin.

Dr. W. F. Lorenz, Prof. of Neuro-Phychiatry, * University of Wisconsin, Director of Wisconsin Psychiatric Institute.

"The Surgery of Spastic Paralysis."

Dr. Frederick J. Gaenslen, Orthopedic Surgeon to the Wisconsin General Hospital at the University of Wisconsin.

"Lymphoid Resistance and Susceptibility."

Dr. C. H. Bunting, Prof. of Pathology, University of Wisconsin.

"The Surgery of Cleft Palate with Special Reference to a New Method of Treatment."

Dr. George V. I. Brown, Plastic Surgeon to the Wisconsin General Hospital at the University of Wisconsin.

10. "Arterial Hypertension: Its Management and Its Significance."

Dr. William A. Jenkins, Prof. of Medicine and Clinical Medicine, University of Louisville, Medical Department, Louisville, Ky.

Intermission—Review Exhibits.

11. Subject later.

Dr. Charles H. Frazier, Prof. of Neurosurgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

12. "Cardiac Sufficiency."

Dr. Charles F. Martin, Prof. of Medicine, McGill University, Faculty of Medicine, Montreal, Can.

13. "Differentiation Between the Quick and the Dead."

Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

14. "Observations on Pneumonia."

Dr. Francis G. Blake, Prof. of Medicine, Yale University, School of Medicine, New Haven, Conn.

Evening Session—7 P. M.

15. Symposium, Western Reserve University (Crile Clinic), Cleveland, Ohio.
Supervised by Dr. George W. Crile, Prof. of Surgery.
"The General Roles of Surgery, the X-rays and Radium in the Treatment of Benign and Malignant Tumors of the Uterus."
Surgical side by Dr. George W. Crile.
X-ray Therapy by Dr. U. V. Portmann.
Radium Therapy by Dr. T. E. Jones.
16. "The Factor of 'Coincidence' in Surgery."
Dr. Leonard Freeman, Prof. of Surgery, University of Colorado, School of Medicine, Denver, Colo.
17. "Certain Factors in the Differential Diagnosis of Non-acute Surgical Lesions of the Stomach, Biliary Tract and Appendix."
Dr. Allen Whipple, Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.
18. Symposium, University of Michigan, Medical Department.
Supervised by Dr. Hugh Cabot, Dean and Prof. of Surgery.
"Nephritis."
"The Etiology of Nephritis"—Dr. L. H. Newburgh.
"The Pathology of Renal Diseases"—Dr. A. S. Warthin.
"Infections of the Kidney Other Than Tubercular"—Dr. Hugh Cabot.
19. "Some of the More Common Neurosurgical Conditions."
Dr. Ernest Sachs, Prof. of Clinical Neurosurgery, Washington University, School of Medicine, St. Louis, Mo.

Fourth Day—Thursday, Nov. 1, 7 A. M.

1. Diagnostic Clinic (Pediatrics). Infants suffering from nutritional disturbances, diarrhea and feeding difficulties.
Dr. William McKim Marriott, Prof. of Pediatrics, Washington University, School of Medicine, St. Louis, Mo.
2. Diagnostic Clinic (Surgical). Fractures, cases of osteomyelitis, bone tumors, various joint lesions, traumatic peripheral nerve lesions and other general surgical conditions of the extremities.
Dr. Clarence L. Starr, Prof. of Surgery, University of Toronto, Faculty of Medicine, Toronto, Canada.
3. Diagnostic Clinic (Medical). Cases of urethritis, prostatitis, hematuria (various types), tuberculosis of urinary or seminal tract along with lantern slides, bringing out points in diagnosis and treatment.
Dr. Hugh H. Young, Clinical Prof. of Urology, Johns Hopkins University, School of Medicine, Baltimore, Md.

Intermission—Review Exhibits.

4. Diagnostic Clinic (Medical). Heart and lung cases.

- Dr. Frank Billings, Prof. of Medicine, Rush Medical College, Chicago, Ill.
5. Diagnostic Clinic (Surgical). Some medical and surgical aspects of diseases of the biliary apparatus, including gallstone disease, carcinoma, chronic pancreatitis and all those conditions which result in infections of the biliary passages, jaundice, etc.
Dr. William J. Mayo, Mayo Clinic, Rochester, Minn.

Afternoon Session—I P. M.

6. Symposium, University of Minnesota Post-Graduate School of Medicine (Mayo Clinic).
"Diseases of the Thyroid."
"Significance of the Clinical and Pathological Findings in Conditions Associated with Abnormal Thyroid Function"—Dr. Henry S. Plummer, Prof. of Medicine.
"Practical Value of Basal Metabolism Estimations in the Management of Diseases of the Thyroid"—Dr. Walter M. Boothby, Assistant Prof. of Medicine.
"Surgery of the Thyroid and Its Mortality"—Dr. John DeJ. Pemberton, Prof. of Surgery.
7. "Remarks on the Diagnosis and Treatment of Various Diseases of the Prostate." (Lantern slides.)
Dr. Hugh H. Young, Clinical Prof. of Urology, Johns Hopkins University, Baltimore, Md.
8. "Some Practical Points in Infant Feeding."
Dr. William McKim Marriott, Prof. of Pediatrics, Washington University, School of Medicine, St. Louis, Mo.
9. "Biophysics as an Approach to Scientific Medicine of the Future."
Dr. William J. Mayo, Mayo Clinic, Rochester, Minn.

Intermission. Review Exhibits.

10. "The Treatment of Compound Fractures."
Dr. Clarence L. Starr, Prof. of Surgery, University of Toronto, Faculty of Medicine, Toronto, Canada.
11. "A Consideration of Some of the Problems in the Treatment of Syphilis Today."
Dr. William Allen Pusey, Emeritus Prof. of Dermatology, University of Illinois, School of Medicine, and President-Elect, American Medical Association, Chicago, Ill.
12. "The Fashioning of the English-speaking Peoples."
Sir Robert Falconer, President of University of Toronto, Toronto, Canada.
13. Foreign Guests.
Sir William I. DeCourcy Wheeler, President of the Royal College of Surgeons of Ireland, Dublin, Ireland.
Mr. Arthur E. Webb-Johnson, C.B.E., D.S.C., F.R.C.S., The Middlesex Hospital, Medical School, W. 1, London, England.

Banquet, 7 P. M., Nov. 1, 1923.

ADDRESSES:

- Sir Robert Falconer, President of University of Toronto, Toronto, Canada.

Sir William DeCourcy Wheeler, President of Royal College of Surgeons of Ireland, Dublin, Ireland.

Dr. Ray Lyman Wilbur, President of Leland-Stanford University and President of American Medical Association, Stanford University, California.

Dr. Charles F. Martin, Dean and Prof. of Medicine, McGill University, Faculty of Medicine, Montreal, Canada.

Honorable Albert B. Cummins, United States Senator, Washington, D. C.

Honorable Nathan E. Kendall, Governor of Iowa, Des Moines.

OTHER DISTINGUISHED CITIZENS

NOTE:—If it is possible, Dr. Leonard W. Ely, Assistant Professor of Orthopedic Surgery, Leland Stanford University, will give an address, "The Second Great Type of Chronic Arthritis."

NATIONAL CONVENTION OF ANESTHETISTS WILL MEET IN CHICAGO.

SECOND ANNUAL CONGRESS OF ANESTHETISTS.

National Anesthesia Research Society.

Interstate Association of Anesthetists.

Mid-western Association of Anesthetists.

Chicago Society of Anesthetists.

Headquarters Scientific Sessions and Exhibits
Auditorium Hotel.

Chicago, October 22-24, 1923.

All scientific sessions of the Congress as well as the exhibits will be held on the ninth floor of the Auditorium Hotel. As the Clinical Congress of Surgeons will be in session across the street at the Congress Hotel both meetings will be entirely accessible to all in attendance.

Among many interesting papers to be read will be: Researches on Ethylene, Acetylene and Similar Products as Anesthetics; Symposium on Handling Handicapped Patients; Symposium on Nitrous Oxide-Oxygen Anesthesia; Special Session Devoted to Anesthesia in Oral Surgery and Dentistry; Sessions devoted to papers on Clinical and Technical Development of Methods of Anesthesia. Several foreign anesthetists plan to read papers.

Dr. Isabella C. Herb is in charge of the forenoon devoted to Clinics. Laboratory demonstrations on subjects pertinent to Anesthesia will be given by prominent research workers. Dr. Frank J. Bernard and his committee are planning the social events for the entertainment of visiting ladies. Annual dinner Tuesday evening, October 23, Auditorium Hotel. For further information address Dr. F. H. McMechan, Secretary, Lake Shore Road, Avon Lake, Ohio, or Chicago Society of Anesthetists; J. E. H. Atkeisson, M. D., President, 1954 Milwaukee Ave.; Frances E. Haines, M. D., Secretary, 3239 Washington Blvd.

SOUTHERN MEDICAL ASSOCIATION.

During the meeting of the Southern Medical Association in Washington, D. C., Nov. 12-15, it is hoped that the Alumni of each of the Medical Schools represented will meet together at dinner. The evening of Wednesday, November 14, has been set apart for that purpose and dining rooms have been already engaged.

The committee desires to know approximately the number of diners to be expected at each of these reunions. Those who expect to attend should therefore notify the undersigned by the end of October.

Tom A. Williams,
Chairman Alumni Dinners,
Southern Medical Association.

1746 K Street.

NOTICE OF EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE.

Examinations of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following-named places on the dates specified:

Washington, D. C.....October 8, 1923

Chicago, IllinoisOctober 8, 1923

San Francisco, Calif.....October 8, 1923

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

H. S. Cumming,
Surgeon General.

THE MEDICAL PROFESSION AND THE CREDIT SYSTEM.

INGENIOUS MAIL ORDER MERCHANT HAD SURE TEST FOR CUSTOMERS.

A friend of mine who used to sell talking machines by mail order hit on a simple method for finding out which persons he might trust, writes Fred Kelly in the *Nation's Business*.

On receiving an answer to his advertisements, he wrote to the inquirer asking for the name of his family physician, as reference. If this name was forthcoming, my friend then shipped the talking machine without further ado. He never even bothered to write to the family physician.

His reasoning was this: people always pay the doctor last. If a man will give his doctor's name as reference in a mail order transaction he surely doesn't owe the doctor any money. And if he doesn't owe the doctor he probably doesn't owe anybody. Hence, presumably, he is a fair risk for a talking machine or other goods on credit.

THE IMPORTANCE OF THE PLACENTA, ESPECIALLY THE TROPHOBLAST, IN RESPECT TO THE DURATION OF PREGNANCY AND THE INCEPTION OF LABOR

The internal secretory function of the placenta resides in the trophoblast. Substances produced by it protect the developing ovum by limiting uterine contractility. This restraint diminishes when the syncytium begins to show signs of age. With its decay, labor begins. When the restrictive placental action is abnormally small or stimuli of abnormal strength exist, abortion or premature birth takes place. A dried placental extract was effective in the author's experience in cases of habitual abortion and premature birth. The oxytocic action of placental extract referred to by other writers is not specific, but is a property of all the organic extracts.—K. de Snoo (*Monatsschrift für Geburtshilfe und Gynäkologie*, 1922, 57:1).

ON DEPRESSIN, A NEW BIOLOGICAL PREPARATION WHICH REDUCES PATHOLOGICAL BLOOD PRESSURE

The author has long felt the need of a cardiac depressant available under all circumstances. Iodine owes its effectiveness to the fact that a large percentage of arteriosclerotics are tertiary syphilitics. It is entirely ineffectual in pure arteriosclerosis. Diuretin in angina pectoris and similar angiospastic conditions, and salt-poor diet or physical means in given instances have reduced blood pressure, but do not maintain the reduction.

Intramuscular injection of a variety of avirulent killed bacteria was found by the author to produce a gradual effect resembling the gradual dissolution of bacteria in the human organism. Preferably he used colon bacilli, embedding them in gelatine in ampoules of seven strengths, each double its predecessor. Three cubic milligrams softened by warmth were mixed with the same amount of sterile salt solution in the ampoule and injected, for successive daily injections. The injection was painless and the temperature rose but slightly, if at all.

Cases of single arteriosclerosis are most susceptible, such as arteriosclerosis of the brain with torturing headaches, vertigo, deafness and functional brain disturbances like failure of memory, inability to concentrate and disinclination to work. These symptoms disappear after from six to ten injections in proportion as the blood pressure falls. In three instances of apoplectic seizure an intentionally large

injection the day following caused a quick fall of blood pressure and accompanying abatement of the apoplectic symptoms.

In cases of cardiac insufficiency and hypotonia where digitalis fails, depressin enables it to act. In angina pectoris two or three injections dispelled the pain. The ineffectiveness of the remedy in luetic angina establishes a differential diagnosis.

Usually in presence of contracted kidneys it is also ineffective, perhaps because of toxic action through the vasomotor centers. But in arthritis deformans Zimmer reports good results with depressin. In eight cases with stiff joints where the usual methods of treatment brought no result, depressin afforded immeasurable relief and restored mobility. In four cases of exudative pleurisy, too, the result was very striking. In all there was a thick serous exudate unimproved by autoserotherapy: a single injection of depressin caused astonishingly rapid absorption of the exudate, in one case with a chill, in the others without mentionable temperature.—C. Zülzer (*Die Therapie der Gegenwart*, July, 1922.)

ADIPOSOGENITAL DYSTROPHY

The three cases reported all showed pituitary changes and none gave signs of brain tumor or pathological cerebral pressure, while congenital defects were evident, such as retinitis pigmentosa, polydactyly and atresia ani, as well as characteristic stigmata of cerebral underdevelopment, the chief of these being a singular mental torpidity. Basal metabolism was diminished, especially in one patient. Digestive disturbances were frequent. This new symptom complex is attributed by the author to a primary developmental brain deficiency, localized especially in the metabolism center. Careful consideration of the pathogenesis of Fröhlich's disease indicates a pure pituitary and a pure cerebral form as its extremes. In the majority of cases of adiposogenital dystrophy the symptoms indicate that the pathological cause, whether a tumor of the pituitary gland or in its vicinity, or simply cerebral pressure, impinges on both the pituitary and the brain. Even autopsy findings have afforded no means of separating these two factors. Similar functional disturbances result, whether the stimulative action of the intermedial secretion on the midbrain centers is defective, or whether these centers themselves are interfered with. Only continued study can clear up this problem. The same with regard to diabetes insipidus. Here, too, either a purely pituitary or a purely cerebral condition may account for the disturbance of the fluid regulating center in the tuber cinereum. Between these two extremes lie the larger number of cases.—A. Biedl (*Medizinische Klinik*, Aug. 6, 1922).

Dentist—What kind of filling do you want in your tooth, son?

Boy—Chocolate, doctor.—*Med. Life*.

SUBSCRIBERS TO THE LAY EDUCATIONAL FUND OF THE ILLINOIS STATE MEDICAL SOCIETY CORRECTED TO DATE.

Below is a list of subscribers from down state and Chicago to the Lay Educational Fund as per letter sent members soliciting fund and cooperation. The list has been carefully checked to make sure of accuracy. If an error has crept in kindly note same and forward to the committee:

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F. H. Metcalf.....	Franklin	Herman J. Neubauer.....	Hinckley
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C. S. Nelson.....	Springfield	R. T. Rodway.....	Roanoke
D. R. Nelson.....	Moline	Rock Island Medical Society.....	Rock Island
E. G. Nilson.....	Kankakee	Isaac D. Rawlings.....	Springfield
G. P. Noren.....	Kewanee	B. Socoloff.....	Clifford
E. H. Oelke.....	Wheaton	H. L. Le Saulnier.....	Red Bud
Fred O'Hara.....	Springfield	Allen Salter.....	Lena
F. J. Otis.....	Moline	A. M. Shaw.....	Adrian
H. M. Orr.....	La Salle	O. M. Slater.....	Atwood
A. B. Ormsby.....	Murphysboro	A. L. Stuttle.....	Williamsville
J. W. Ovitz.....	Sycamore	O. W. Staib.....	Bartlett
John H. Oliver.....	Kewanee	F. B. Schroeder.....	Princeton
Mather Pfeiffenberger.....	Alton	C. R. Shearer.....	Alpha
Phebe Pearsall.....	Moline	M. H. Shipley.....	Rockford
R. P. Peairs.....	Bloomington	J. E. Scholes.....	Bradford
L. S. Pederson.....	Manhattan	E. F. Scheve.....	Mascoutah
Theodore S. Proxmire.....	Lake Forest	H. R. Sword.....	Milledgeville
J. A. Plumer.....	Trivoli	W. F. Scott.....	Maywood
F. A. Palmer.....	Morris	Clifford E. Smith.....	De Kalb
H. L. Pettit.....	Morrison	R. H. Smith.....	Eureka
W. B. Peck.....	Freeport	H. J. Schmid.....	Harvard
T. A. Pettepiece.....	Freeport	Joseph Semerak.....	Oak Park
H. F. Peterson.....	Dundee	J. W. Seids.....	Moline
P. H. Poppens.....	Princeton	C. D. Swickard.....	Charleston
Ely E. Perisho.....	Streator	Hugo C. H. Schroeder.....	Granite City
Plumer & Grimm.....	Farmington	Raymond G. Scott.....	Geneva
Arthur Parsons.....	Geneseo	G. A. Sihler.....	Litchfield
S. G. Peterson.....	Rutland	Alfred E. Staps.....	Basco
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Daniel W. Rogers.....	Highland Park	C. A. Stokes.....	Edinburg
L. T. Rhoads.....	Lincoln	H. G. G. Schmidt.....	Elgin
L. F. Robinson.....	Ullin	W. N. Sievers.....	White Heath
Wm. J. Rose.....	Columbia	Chas. H. S. Starkel.....	Belleville
M. E. Rose.....	Decatur	E. E. Shelly.....	Freeport
Lawrence A. Ryan.....	East St. Louis	Harold Swanberg.....	Quincy
M. M. Rickett.....	Ivesdale	H. E. Stephen.....	Joliet
M. L. Rosensteil.....	Freeport	A. Schreffler.....	Joliet
C. B. Ripley.....	Galesburg	A. G. Sellards.....	Joliet
Henry Reis.....	Belleville	Lena Stewart.....	Joliet
H. H. Roth.....	Murphysboro	A. R. Steen.....	Joliet
J. O. Renwick.....	Warren	J. H. Siegel.....	Collinsville
E. H. Raschke.....	La Grange	A. M. Shaw.....	Adrian
H. P. Reuss.....	Granite City	Wilbur F. Spencer.....	Geneseo
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Peter J. Reynolds.....	Dwight	E. R. Talbot.....	Joliet

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R. V. Thomas.....	Manteno	C. E. Woodward.....	Decatur
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E. P. Van Arsdale.....	Beardstown	Note—Will County Medical Society contributed \$350.00 to the fund. Rock Island County Medical Society contributed \$100.00 to the fund. Madison County, Winnebago County and the Tri-City Medical Society also contributed. These five organizations are the only County Societies that as organizations have contributed to the fund.	
H. M. Voris.....	East St. Louis		
C. E. Wilkinson.....	Danville	The proposed campaign cannot be prosecuted without funds; it must be supported by popular subscription. It is hoped that every doctor will subscribe to this worthy cause. Serious disease diverted from the incompetent will result in the saving of thousands of lives and will prevent much permanent invalidism.	
C. E. Williams.....	Danville		
R. R. Whiteside.....	Moline	This campaign will achieve two great objectives: A gradual, but ultimate restoration of the medical profession to its merited place in the public sympathy and confidence and the inestimable benefits to humanity through the consequent prevention of disease and the preservation of life.	
K. W. Wahlberg.....	Moline		
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J. W. Walton.....	Homer		
H. M. Wolfe.....	Taylorville	Please sign and mail to the Illinois State Medical Society.	
A. W. Woods.....		
A. A. Wilson.....	Davis	To the Officers of the Illinois State Medical Society and Members of the Council:	
W. C. Wood.....	Decatur		
Rodney A. Wright.....	De Kalb	"I am in accord with the proposed newspaper educational campaign in the press of Illinois, unanimously adopted by the House of Delegates of the State Society at the 1922 meeting and the plan recommended by the Council of the Society, and as evidence of my desire to co-operate with the Officers of the Council and of the State Society, I hereby enclose my check for \$. to aid in defraying the expenses thereof:	
H. Wellmerling	Bloomington		
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A. Weichert	Barrington		
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F. A. Wiley.....	Earlville		

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4738 Broadway,
Chicago, Illinois."

25 E. Washington St.,
Chicago, Ill.

Lay Publicity Committee.

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This campaign will achieve two great objectives: A gradual, but ultimate restoration of the medical profession to its merited place in the public sympathy and confidence and the inestimable benefits to humanity through the consequent prevention of disease and the preservation of life.

For the convenience of those who have mislaid their letter of Appeal from the State Society, we hereby reproduce the pledge card:

Please sign and mail to the Illinois State Medical Society.

To the Officers of the Illinois State Medical Society and Members of the Council:

"I am in accord with the proposed newspaper educational campaign in the press of Illinois, unanimously adopted by the House of Delegates of the State Society at the 1922 meeting of the plan recommended by the Council of the Society, and as evidence of my desire to co-operate with the Officers of the Council and of the State Society, I hereby enclose my check for \$..... to aid in defraying the expenses thereof:

Make Checks Payable to the Illinois State Medical Society.

Name.....M. D.

Street

City..... County.....

"Sign the above pledge card, make out a check payable to the Illinois State Medical Society and mail both in an envelope as follows:

From

ILLINOIS STATE MEDICAL SOCIETY,
c/o Cashier, Sheridan Trust & Savings Bank,
4738 Broadway,
Chicago, Illinois."

Lay Publicity Committee, 25 E. Washington St.

Correspondence

THE DIFFERENCE BETWEEN INVESTING AND SPECULATING

Chicago, Ill., Sept. 15, 1923.

To the Editor:

The president of a young firm that manufactures biologics and pharmaceutical preparations was brought to me by a mutual friend the other day to obtain information as to floating a bond issue to finance his rapidly-growing business. The mutual friend, a man of sound judgment and high integrity, vouched for the manufacturer, his thorough honesty and capability. The manufacturer's clear and comprehensive reports told further that he had an excellent, well-managed, prosperous business.

"We've made a good deal of money," said the manufacturer, "and put it back into the business, but in spite of everything we can do, we are, every day, more and more behind in filling our increasing orders. We've grown rapidly in our few years of existence and can keep on expanding at the same rate, but our opportunities are so great that I don't want to wait five or ten years in growing into them. We've got everything we need, except capital."

"Why don't you issue stock?" I asked. "You haven't anything to secure a bond issue properly considering the large sum you need."

"I'd rather issue bonds," said the manufacturer, "because I want to put every cent I can get into the business. It would cost at least 15 per cent, probably more, to put through a stock-selling campaign, naturally offering our stock to physicians and surgeons who know the value of our products. It would be much cheaper to issue bonds. Don't you see I'm trying to do everything for the best interests of the business? It's a safe proposition."

"Safe as a good, fine business speculation," I answered, "but not safe as a bond issue. You haven't adequate security for a bond issue. Now, don't misunderstand my use of the term 'speculation.' By it I mean honest, competent, forceful and resourceful business enterprise, the thing that has built this country's prosperity. I don't mean gambling or wildecating. But every business, no matter how sound and worthy, faces risks. Persons who would put money into your business now would be taking risks. It would be

a sensible, sound, fair risk, no doubt, to buy your stock. Your fine earning record and your apparent prospects indicate that you, in all likelihood, will pay handsome dividends. Your stockholders will be repaid for the risk in buying stock. They ought to have the reward. They would deserve it.

"But what pay would your bond holders receive for taking the same risk, if you could issue bonds instead of stock? You can't offer more than current rates of interest on long-time securities. You can't adequately secure the bonds."

"But I don't see where there's such a tremendously big risk in my business," objected the manufacturer. "Don't you believe my reports?"

"Absolutely, I believe them. I think you are the kind of man who should be encouraged. I think your business achievements are splendid and your opportunities for development excellent. I think you have as fine and desirable a bit of speculation as I've seen in a year, and by speculation I mean the best kind of business enterprise. But your business and every other good business unavoidably faces risks, and you haven't any right to let bond holders incur such risks. I don't think one of your bond holders would lose a penny, but you haven't security that says that, and security is the thing that counts in a bond issue."

"You spoke of the advantages certain of your patents give you over competitors. Suppose some competitor gets hold of patents superior to yours? That's easily possible, isn't it? Further, as you cut into the business of some of these large, old competitors who are firmly established and well financed, they're going to give you a still harder fight. I don't believe anything like that will keep you from growing or prospering, but it might, and if it did, where would your bond holders be? They'd lose, wouldn't they? Yes, your stockholders would lose, too, but they would have taken the risk, because of the large returns offered."

However, I passed the manufacturer's bond proposal on to members of the Investment Bankers' Association of America without comment, other than that I had thoroughly dependable information as to the manufacturer's high integrity and capability. His proposal was rejected. Subsequently he sold stock to several wealthy business men who saw the wonderful business opportunity the manufacturer had. They

were men who could afford to take a fair business risk because of the greater reward offered. Had they been men of limited income, dependent on their own earnings I doubt if buying that stock would have been wise. Men of limited incomes who are dependent solely on their earnings should, in seeking to build up an independent income for themselves or their families, buy sound bonds. Only if they can afford to risk the possibilities of loss and to wait for dividends can they afford to buy stocks and then only in good, honest enterprises.

The foregoing is one of the best examples of the difference between speculating and investing that I have seen in several months. Speculating is legitimate and desirable for men who can afford it, but you have noticed that, by implication at least, I have not included gambling and wildcatting, buying and selling on margins as speculation for the average man. Speculating is buying stocks, or anything else, which the buyer has sound reason to believe, either from experience or from dependable advice, will be profitable. Of course, there is speculative selling, too, but for the average man who is not a trader, speculation usually consists in buying into some honest, sound, promising enterprise. Investing consists of putting money into something, usually bonds, that are so well secured that payment of the principal and interest are assured. Buying wildcat oil, flying machine, automobile, radio, a patent device and other stocks at the invitation of a promoter whose integrity and business ability are not fully known is not speculating. It isn't even gambling. There's no risk about it—it is certain that the money is lost.

There is only one way for any man who is not a specialist in investment securities to invest safely or to speculate wisely. That is to deal with an investment banking house whose integrity and capability are proved.

SAMUEL O. RICE

Educational Director, Investment Bankers' Association of America

ILLINOIS FEDERATION OF WOMAN'S CLUBS IS GOING AFTER THE THING IN THE RIGHT WAY

Manhattan, Ill., August 23, 1923.

Dr. E. H. Ochsner,
2155 Cleveland Ave., Chicago, Ill.

My dear Dr. Ochsner: As a retired physician, whose early years were spent in general practice,

and who now is interested in Public Health work, I have followed the ILLINOIS MEDICAL JOURNAL and its campaign for lay education, with interest. In the JOURNAL for July it is suggested that some medical representative appear before Women's Clubs and discuss questions of interest to the lay bodies. In this case special reference was made concerning the Sheppard-Towner Act.

As State Health Chairman for the Federation, I am very much interested and feel that this is just what we need. The difficulty I have found in a matter of this kind is that individual physicians may be personally prejudiced or even ignorant of these matters and that we may be informed as to the real issues, it was decided that you be asked to address us through our official paper, the *Edict*. May we hope to have from you a paper setting forth the merits or demerits of the Sheppard-Towner Act, for the October issue?

One of the co-operating agencies which we have included in our year's work, is the State Medical Society, and I am suggesting to all clubs that where they wish help on matters of interest in Public Health that they appeal to the County Medical Society, and not to individual physicians, thus getting the official view of a matter and not that of some individual, who may be a Christian Scientist, or chiropractor depending on the leanings of the president of that particular club.

I feel that if the State Medical Society will take this request seriously, we will have an opportunity to line up officially, large groups of women who will take an intelligent interest in better health and better legislation in the future, not following blindly, as I find them doing and as I found many physicians doing last winter, who would confess that they did not know what a proposed piece of legislation was about. They just did as they were told in the matter. Hoping that I may have an early and favorable reply, I am, sincerely yours,

EVA M. WILSON.

THE WASSERMAN TEST DURING PREGNANCY

Among approximately 5000 routine maternity cases admitted to the Robinson Memorial, Massachusetts Homeopathic Hospital, Boston, during the period between 1917 and 1920, 461, or 8.2 per cent, showed a positive Wassermann reaction. Of this number 391, or 7.8 per cent, gave a definitely strong reaction, and 231, or 4.2 per cent, were strongly positive.

Original Articles

REPORT OF BENIGN TUMORS OF THE GASTRO-INTESTINAL TRACT*

DAMON A. BROWN, M. D.

PEORIA, ILLINOIS

The purpose of this paper is to present a series of benign tumors of the gastro-intestinal tract and will consist essentially of case reports, showing some problems in differential diagnosis. The purpose of the paper is to introduce nothing new but rather to stimulate an interest in differential diagnosis of conditions which occur not infrequently in the practice of those especially interested in gastro-intestinal diseases.

The first case, which I wish to discuss is that of a young married white woman, twenty years of age. Family history negative with the exception of the death of her father at the age of fifty-eight, from pulmonary tuberculosis. Past history was negative with the exception of an appendectomy done in 1914. This patient was seen early in 1922. Menstrual history negative. Marital history—one pregnancy which resulted in full term child, aged thirteen months. The chief complaint was that in August, 1921, she developed a sore throat, with difficulty in swallowing. This condition was neglected by the patient until December, 1921, when she consulted her physician. At that time there is no note of the condition found in the patient's throat, with the exception that she had been fed by a tube through the mouth. She was seen by us early in January, 1922, at which time examination revealed a tumor growing from the posterior wall of the pharynx just above the epiglottis. The tumor was hard, irregular, attached by a broad base to the posterior wall of the pharynx and almost completely filling the throat. It had grown to such size that swallowing was impossible and dyspnea quite marked. Patient was markedly emaciated, her only source of food having been rectal feedings for about two weeks. The condition of the patient demanded something radical in the way of establishing nutrition and for this reason a gastrostomy was done on January 7. As a result of further examination in attempting to make a diagnosis of the tumor, a Wassermann was taken as a matter of routine and, to our surprise, turned out four plus positive. There had been a nega-

tive history of luetic infection and no other evidence of lues that we could detect. The patient was gaining strength and weight on feedings through the gastrostomy and was put upon anti-luetic treatment. At the end of two weeks the tumor mass in the throat had decreased in size sufficiently to enable her to swallow soft foods without much difficulty. By March 6, 1922, the condition had improved sufficiently to warrant closing the gastrostomy and under further treatment, the patient made an almost complete recovery.

The reason this case is included in this report is the rather unusual location for a gumma, which we took the tumor to be, and for the necessity of doing Wassermanns as a matter of routine, or whenever a diagnosis is in doubt. In fact, the one lesson that this case would teach is to never forget syphilis.

The second case, which I wish to discuss, is that of a gastric tumor in a white man, aged fifty-one. Family history and past history negative, no operations. This patient was first seen in December, 1920, at which time he was complaining of frequent defecation with small, soft stools with marked rectal burning and pain, weakness and the loss of five or six pounds in the previous year. His history was otherwise completely negative. Examination of the head, throat and chest was negative; digital examination of the rectum negative. At this time no tumor mass was palpable in the abdomen but the upper right abdomen felt full. There were no pain points. The laboratory examinations showed normal urine, hemoglobin—55, red count 3,608,000, white count 12,600, and normal differential count, blood Wassermann negative, Sigmoidoscopic examination negative. Fluoroscopic examination of the gastro-intestinal tract showed a large filling defect on the greater curvature of the stomach in the pre-pyloric region. Nothing abnormal in the colon. This tumor occurring in a man, fifty-one years old, who was anemic, weak, with some loss of weight, suggested a malignancy, which we decided it to be. Patient returned to his family doctor, who gave him appropriate treatment for his anemia and attempted to regulate his diet to control the diarrhea. He was seen again at the end of the year, his condition practically unchanged. X-ray examination of the stomach showed practically the same filling defect, which apparently had not increased in

*Read before Section on Medicine, Illinois State Medical Society, Decatur, May 16, 1923.

size. No further loss in weight. Anemia about the same as it had been. Examination of the gastric contents showed complete achylia. Repeated examination of the feces for blood negative; also negative for ameba. We still considered the condition a malignant growth and operation was not considered, due to the weakened condition of the individual and the size of the growth. Patient was lost sight of then until October, 1922, when he returned in practically the same condition as he had been when seen a year previously. He had lost altogether not over twelve pounds in weight. Hemoglobin—40 per cent, red count 3,432,000, blood count otherwise negative, Wassermann again negative. Stomach contents showed the absence of free hydrochloric acid, the presence of lactic acid, the presence of Oppler—Boas bacilli, undigested meat and vegetable fibres, a large amount of bacteria, no microscopical blood or pus. Occult blood test positive. Feces negative for blood and ameba, no pus. Fluoroscopic examination of the gastro-intestinal tract showed the same filling defect in the pre-pyloric region, slightly larger than at previous examination. At this time the possibility of a benign tumor was seriously considered with the idea of operation. This patient was used as a clinical case during the Tri-State Medical Meeting and was seen by Dr. John Deaver of Philadelphia, for the purpose of getting his opinion as to a differential diagnosis between benign and malignant gastric tumors. Dr. Deaver was familiar with the case history, saw the x-ray plates, made a physical examination, knew of the laboratory findings and examination of the stomach contents and said that it could be but one thing, namely, an advanced inoperable carcinoma. However, in spite of this it seemed to me that with the tumor, which we knew had been present for at least two years, which showed very slight or no growth, with no more evidence of cachexia or toxemia than was shown, and no more loss of weight than about twelve pounds, that a benign tumor might very readily be taken into consideration. This in spite of the laboratory findings, which were so characteristic of malignancy. One of the unusual features in this case is the absence of gastric distress through the entire time that this patient was under observation. We were never successful in controlling his diet. He liked good food and ate heartily of everything. His chief complaint was diarrhea and weakness. The

diarrhea was more marked at night. I came to the conclusion that this must be true because of rapid emptying of the stomach of partially or completely undigested food and the elimination of the undigested food eaten during the day occurring at night. This diarrhea we never could successfully control. Taking everything into consideration, we made a diagnosis of benign gastric tumor and the patient was operated on November 16, 1922. A large tumor mass was found occupying the distal half of the stomach. The pyloric half of the stomach was resected and a gastro-jejunostomy done. The tumor was five by seven centimeters in diameter, occupying the anterior wall of the stomach on the greater curvature. The surface was covered with fairly normal looking mucous membrane and the consistency of the tumor was firm but not hard or nodular. Histological examination showed it to be a myoma.

In the January, 1922, number of *Surgery, Gynecology and Obstetrics*, Eusterman and Senty of the Mayo Clinic, presented a report of twenty-seven cases of benign tumors of the stomach. Quoting from their summary, they say that benign tumors of the stomach are rare and constitute only 13 per cent. of gastric tumors that come to operation. The actual proportion of benign new growths to malignant new growths or ulcerations is as one to two hundred. Myomata and fibromata constitute the largest group, gastric polyposis the most infrequent. About fifty per cent. of benign tumors are found in patients more than forty years of age. There is no characteristic syndrome and gastric chemism ranges from achylia to hyper-acidity with hypersecretion. The summation of evidence favors the diagnosis of gastric cancer. 4. The majority of tumors are situated in the region of the pylorus, the greater curvature, anterior and posterior walls. 5. The smaller tumors are practically symptomless unless situated at the orifices or unless multiple. 6. Common complications are recurring hemorrhage, which occurred in 37 per cent. and pyloric obstruction which occurred in 25 per cent. Palpable mass, food retention, or six hour barium retention is less frequent than in gastric cancer. 7. Often patients with benign gastric tumors are refused operation because the condition is regarded as malignant and inoperable. The true nature of the lesion is discovered

only when the patients insist on operation. 8. The surgical end-results are excellent.

The outstanding diagnostic points in our case, that this tumor was a benign tumor, were the presence of a mass in the stomach extending over a period of two years with slight or no evidence of growth, weakness without marked loss of weight, marked secondary anemia without real cachexia and a digestive disturbance characterized by diarrhea with no infectious or mechanical conditions demonstrable in the colon to account for it.

The next case is presented not so much because of the diagnostic problems involved as to illustrate the presence and rather unusual complication of an infrequently incurred type of tumor in an unusual location. This patient was a white female, aged fifty. Family and past history negative. Menstrual history negative. Marital history—eleven pregnancies, nine living children, two dead. At the time she was seen, she was complaining of severe pain in the lower right abdomen. The onset had been two weeks previously, characterized by nausea and slight pain in the lower right abdomen. This pain had continued and become quite constant and increasingly severe, characterized by sharp paroxysms of cramping pain, four to five stools containing mucus, at times blood stained. Examination of the abdomen revealed an oblong mass lying obliquely in the left lower quadrant, fixed and firm. Pelvic examination showed the uterus to be of normal size, freely moved, apparently not connected with the tumor mass in the left lower abdomen, no distension or tympanites, temperature and pulse normal, laboratory examinations negative. Because of the patient's age, a diagnosis of probable malignancy causing a partial obstruction was made. The condition was considered critical enough to perform an immediate operation. When the abdomen was opened, the colon was seen to be considerably enlarged. The mass in the left lower abdomen was dislodged and proved to be the enlarged colon. When the entire mass was delivered it was seen to be an intussusception. The intussusception was reduced by pressure upon the distal point. After the reduction was effected a round solid tumor, seemingly about two inches in diameter, was felt inside the cecum. Ileum and ascending colon were clamped and the cecum opened in the longitudinal line. The tumor was delivered and was

found attached by a pedicle to the outer side of the cecum. Mucous membrane was cut around the pedicle and the pedicle ligated and the tumor cut off. The tumor felt firm, very much like a small fibroid and was easily enucleated. It was quite evident that the tumor had been the cause of the intussusception. Histological examination of the tumor proved it to be a lipoma. This case was reported merely for the rather unusual type of tumor occurring in this location, within the lumen of the cecum and causing the complication of intussusception.

The following case is that of a white male, aged thirty-nine. Family history negative. Previous history negative with the exception of attacks of tonsillitis during early life and an appendectomy performed in July, 1922. His chief complaint was attacks of severe cramping pain in the left side of his abdomen and pelvis, radiating into the left testicle and the head of the penis. The first attack of this kind occurred in June, 1922, and lasted intermittently for eight days. During this time he was nauseated and vomited frequently, had increased and burning urination with temperature up to 102°. In July, a month following this attack, a laparotomy was performed in another city at which time the appendix was removed and he was told that he had a dermoid cyst in the lower abdomen, which was inoperable. From the time of operation until December, 1922, he had no further attacks of pain. Since that time pain had been present more or less all of the time. His gastro-intestinal history showed that for fifteen years he had been subject to attacks of nausea and vomiting with severe abdominal pain occurring in the mid abdomen and lasting two or three hours, cramp-like in character, and occurring almost immediately after meals. The attacks occurred two or three times a year. During these attacks he would have from six to eight fluid stools a day, no blood or mucus in the stools; with temperature of two to three degrees. In the interval between attacks, his digestion was good, there was no marked bowel disturbance with the exception of an increasing constipation. There had been no loss of weight and strength was good. History otherwise negative. On examination we found an extremely well nourished and muscular man, extremely tender on pressure over the mid lower abdomen just above the pubic bone. Pressure over this point produced a shooting pain down to

the head of the penis. He was not tender over any other portion of the abdomen or over either costo-vertebral angle. There were no palpable masses. His temperature at the time he was under observation ranged from 99 to 100°, pulse between 80 and 90. Urine showed no albumin or sugar, a moderate amount of hyaline casts, and one or two red blood cells to a field, no pus. Hemoglobin 90, red count 4,896,000, white count 21,200, differential 72 polys., 14 lymphs, 4 per cent. large mono. Wassermann negative. Examination of the head and throat negative. Heart and lungs normal. Blood pressure 118 over 76. Fluoroscopic examination of the colon, using a barium enema, showed the rectum and lower part of the sigmoid filled completely but the barium mixture did not rise above the lower part of the sigmoid. As pressure was increased in the rectum, he complained very bitterly of pain in the left side of the abdomen, this pain being identical to the type of pain which he had during his attacks, and radiated to the penis and testicle. At no time were we able to force the barium mixture above the lower part of the sigmoid. Fluoroscopic examination of the chest and stomach was negative. The colon, by barium meal, showed no abnormalities with the exception of a marked constriction of the lumen of the sigmoid in its lower portion. X-ray examination of the abdomen for dermoid cyst showed no densities, which might be interpreted as due to bone or teeth. X-ray examination of the genito-urinary tract negative. From his history of severe cramping pain in the left lower abdomen radiating to the testicle and penis with frequent and painful urination, the first thing suggested was some kidney or ureter disturbance. The practically negative urine and negative examination of the genito-urinary tract by x-ray, however, we felt ruled this out. On going further back into his history and learning of his attacks of pain similar in character to the pain he had at the time of examination, which had occurred off and on over a period of fifteen years with diarrhea and temperature, the possibility of some recurring infectious condition in the gastro-intestinal tract seemed more probable. His increasing constipation with x-ray evidence of partial obstruction of the sigmoid led us to believe that the most likely condition was some process of inflammatory nature involving the sigmoid. As the sigmoid and descending colon are the most frequent location

for diverticula, diverticulitis was considered the most probable condition. There was a question as to whether he had had an inverted diverticulum with recurring attacks of inflammation, producing swelling of the mucous membrane and partial obstruction or possibly an intussusception or a ruptured diverticulum producing repeated attacks of peri-sigmoiditis which had involved the ureter explaining the radiating pain to the testicle and penis. A diagnosis of diverticulitis was made and operation performed December 29, 1922. At operation a mass was found in the central lower pelvis that was the thickened, enlarged lower end of the sigmoid. Approximately five inches of the lower portion of the sigmoid including the tumor was removed and an end to end anastomosis done. The removed piece of sigmoid was five inches long and the mesenteric surface smooth, covered with fat and showed no abnormalities. The remainder of the wall was very much thickened with overlapping layers of a fairly firm, reddish-white smooth tissue which proved to be fat and connective tissue. This thickness of the gut wall had gradually encroached upon the lumen, producing a partial obstruction. Mucous membrane was normal throughout the entire piece with the exception of one area, one-half centimeter in diameter, the site of a diverticulum which had ruptured and produced a tiny sinus through the bowel wall. Very evidently from time to time this sinus would open, discharging a small amount of the bowel content, producing a perisigmoiditis with the consequent development of a gradually increasing inflammatory tumor.

DISCUSSION

DR. MILTON E. ROSE, Decatur: Of course we all know that malignant tumors of the stomach and bowel are more frequent than the benign, as Dr. Brown brought out. There is one point perhaps which Dr. Brown did not emphasize sufficiently. That is, in distinguishing between malignant and benign tumors, the presence of blood in the stool.

I believe the average doctor does not make as many stool examinations as he should. The more stool examinations I make, the more I want to make and the more I learn by making them. In stomach and bowel work I find I am not satisfied unless I have examined at least five stools in every case.

It is the same with blood cultures. One negative blood culture is not conclusive. One negative stool examination doesn't mean a thing. If one gets into the habit of studying the stool in gastro-intestinal work, much information will be gained.

Carcinomata bleed, as we know, and, therefore, we

expect to find blood in the stool. Of course there are exceptions to this rule. Benign tumors, as a rule, do not bleed and, therefore, the stool will not contain blood.

One point which should be mentioned, however, in examining stools for blood, is to be sure the patient, when he brushes his teeth, does not make them bleed. Blood swallowed in this way will show up in the stool. Be sure that he rinses his mouth well after brushing his teeth. The patient should be on a meat-free diet and he should be questioned whether or not he has had a recent nose bleed.

The case of Dr. Brown's with the large benign tumor at the pylorus is a very interesting and instructive one. I recently had a similar case in a man of 35 years. He presented the typical picture of complete pyloric obstruction. There was an absence of CH₁ in the stomach contents and much occult blood found in every stool examined. The x-ray showed a large filling defect at the pylorus involving mainly the greater curvature. The Wassermann was negative. At operation a large tumor mass (size of an orange) was found in the lower end of the stomach, closing off the pylorus, and it seemed quite certain that it was a carcinoma. A posterior gastro-enterostomy was made to relieve the obstruction. The patient made a good recovery and he improved rapidly. A large gland removed at operation did not show malignant changes. Two more Wassermanns were made and found negative. In spite of these findings, he was given weekly injections of neoarsphenamine with continued improvement. Today he is quite well, and it seems that if his tumor were a cancer, he would not be alive at this time.

The barium enema is another valuable procedure to help us arrive at a correct diagnosis in gastro-intestinal work. The additional expense it incurs and the necessity of referring our patient to "another specialist" are obstacles which often stand in our way. If it cannot be employed routinely, it should be used in all more or less obscure cases, as the finding of constant filling defects or abnormal contractions of the colon will often clear up the diagnosis.

DR. DAMON A. BROWN (Closing): Uesterman and Senty had thirty-seven per cent. of benign tumors showing hemorrhage. It is true the malignant tumor will show hemorrhage in a much larger percentage than the benign. That may be a different diagnostic point.

COULDN'T FOOL KING MILAN.

King Milan of Servia once went to the hotel of a distinguished lady who was giving a bazaar for the benefit of the poor children of Paris. As soon as the king appeared upon the scene she advanced toward him with a splendid silver salver in her hands on which was beautifully emblazoned the family arms. On it lay a pretty little bunch of violets. "How much, madam?" asked the king. "Twenty-four lois, sir," was her soft response. Milan paid her the sum she had asked, with a courteous bow, took the salver from her hands, placed the bouquet in his buttonhole and walked off with the tray under his arm.—New York Commercial Advertiser.

MYOCARDIAL DEFICIENCY FROM A SURGICAL STANDPOINT*

J. L. YATES, M. D., M. F. ROGERS, M. D., AND
R. E. MORTER, M. D.

MILWAUKEE, WIS.

A more general and keener appreciation of the moral and economic values of individual effort is one of the most beneficent results of war experiences. Thus the realization has come earlier that development, conservation and rehabilitation of function are the objectives of medicine. Consequently, the chief therapeutic aim is to extend the period of most productive activity, which frequently is after fifty, rather than merely to prolong life.

A notion, popularized by Osler, that productivity terminates in the forties, has been unfortunately influential. Much of the world's best work has been, is being done and will the more be done by those well past the age, set in jest by Sir William, for chloroform euthanasia. We have too long accepted a dictum that a man is as old as his arteries without considering the more significant fact, that age itself is of little moment. The real issue is total accomplishment, which is commensurate with the length and character of life and is determined largely by the functional capacity to heart muscle.

Vital statistics indicate to a limited degree the sinister effects of myocardial deficiency upon modern life. Diseases of the heart have become one of the commonest recognized causes of death and at times, in industrial communities particularly, they are the commonest. Even granting more than a full quota of statistical errors, the numbers registered are too low; first, because they are largely based upon valvular lesions¹, and second, because of the many deaths attributed for example to infections, injuries, childbirth and operations wherein the actual determining lethal factor had been pre-existing myocardial defects with consequent reduction in reserve myocardial energy—a narrowed margin of safety.

Innumerable individuals have demonstrated the capability of relatively healthy heart muscle to cope successfully with handicaps such as valve defects or long continued arterial hypertension, and its inability, if injured, to deliver the heart power required for normal existence even when

*Read before the Tri-State Medical Society, Nov. 2, 1922.
(Cuts by Courtesy of Wisconsin Medical Journal.)

the balance of the circulatory mechanism was virtually normal. In short, individuals are born with a definite potentiality for myocardial energy which may be developed and maintained at its maximum or may be dissipated. Lesser demands of life require an expenditure of currency energy: greater demands, occasioned by unusual mental or physical effort and by disease, call for reserve or potential energy. The amount of available potential energy measures ability to live beyond the limitations of the sedentary or the bedridden. Manifestly the largest supply of heart muscle energy, the widest margin of safety, is invaluable.

The surest way to practical solutions of the many problems inherent in the prevention and relief of cardiac malfunction is to recognize nature's methods of adaptation to handicaps. Thus alone is it possible to develop measures that will secure the least unfavorable working conditions for the heart which are far superior to attempts at artificial control of the heart's action, usually harmful and often futile, but supposed to meet disadvantages to which the circulation is already reacting naturally and as effectively as circumstances permit.

Presumably, the circulatory apparatus has been developed to deliver an excess of blood and lymph in the most economic manner, i. e., with the least expenditure of energy and with the largest opportunity for recuperation of the energy expended. Under normal conditions the requisite pressures are maintained by that co-ordination of the force and rate of heart muscle contractions best suited to the individual. Various factors—psychic, nervous inhibition and acceleration, mechanical, thermal, hydraulic and chemical—all enter into this co-ordination. The tonicity of the chambers of the heart measures the functional capacity of each², and to a degree, that of the entire organ somewhat as a weak link determines a chain's strength.

Under abnormal conditions the co-ordination of force and rate of contractions is less favorable though probably the most economic possible at that time for that individual. No matter which controlling factor or factors may be responsible for disintegrating the circulatory apparatus, there is this effect, a relative increase in expenditure of energy with a relative reduction in recuperation, and, in consequence, an expenditure of reserve energy. Whether the process is protracted and hypertrophy develops, or whether there is

not time for this compensatory adjustment, if the provocation persists, the total available energy becomes inadequate to provide the contraction power required to continue the most favorable co-ordination of force and rate. Then, in order to maintain blood pressure compatible with life, the rate of contraction increases to supply the deficit of force. Thus is initiated a progressive tachycardia which, unchecked, ends in cardiac exhaustion.

Cardiac competence depends upon myocardial ability to receive, to transmit and to respond to stimuli so that blood pressures, adequate to supply the needs of the body, are maintained by expenditure and replacement of currency energy without reduction in reserve energy. The basis of functional competence is anatomic integrity.

The causes of cardiac incompetence or myocardial deficiency are heart muscle lesions which vary from the earliest phase of degeneration, possibly cloudy swelling, to necrosis and fibrosis. Their deleterious effects upon function are commensurate with the acuteness and diffuseness of the process, or, when focalized, with the significance of the role played in cardiac function by the part affected. Acute lesions are more dangerous than chronic because adaptation is less possible. They are most dangerous when added to pre-existing chronic changes such as hypertrophy, fibrosis or atonicity.

Influences inimical to normal heart muscle structure are overactivity, inadequate nourishment and intoxication. They frequently operate in conjunction and are likely to initiate or aggravate progressive anatomic lesions and therefore to promote increasing cardiac handicaps.

Myocardial deficiency due to overexertion or under-rest is proportionate to the nature and duration of conditions provoking hypernormal myocardial metabolism and is commensurate primarily with the reduction in reserve energy inevitable with hypertrophy, and secondarily to restricted currency energy or actual power; concomitant with degeneration and atonicity. Fatigue injuries to heart muscle result from (a) occupations requiring an expenditure of energy in excess of that recuperated during rest periods which includes athletic overactivities; (b) fevers; (c) hyperthyroidism; (d) psychoneuroses; (e) intrinsic circulatory handicaps (valve lesions, pericarditis with effusion or with adhesions, and arterial hypertension); (f) extrinsic circulatory

handicaps largely confined to the lesser circulation and produced by emphysema, fibrosis³ consolidation and tumors of the lung, by pleural or mediastinal exudates or tumors⁴, or by parietal deformities especially of the diaphragm. In brief, factors which reduce vital capacity offer obstruction to the pulmonary circulation or vice versa⁵, and in turn overburden the right heart which often, indeed far more often than is accepted, becomes the weak link in the circulatory chain⁶.

Under-nourishment, particularly dehydration of heart muscle, may be focal and due to restricted coronary circulation or result from deficiencies in the blood delivered as in anemia, in starvation inclusive of rigid diets used therapeutically, or from faulty metabolism. Early in the more acute phases of cardiac crises there is adequate nourishment and water in the blood for normal heart muscle⁷. Later when pressures have fallen so that the velocity of the blood stream is reduced and the blood actually in circulation has become overconcentrated and its volume lessened⁸, it is improbable that injured muscle can obtain adequate fuel. Serious effects of myocardial under-nourishment are frequently seen when acute myocardial injuries, e. g., narcotic intoxication and recent intense infections such as tonsillitis, are added to a chronic form due to prolonged somatic under-nourishment or to more acute forms resulting from over-exertion and dehydration. The latter was much in evidence in soldiers wounded after continued marching or fighting in hot weather.

Heart muscle intoxicants are bacterial (venoms), the products of deranged metabolism and drugs. Toxines resulting from acute infections are likely to cause less permanent damage to heart muscle than those coming from chronic focal infections, e. g., teeth, tonsils, sinuses, otitis media, intestinal stasis, etc. The most serious seem to be those located in the bile tract, particularly when associated with jaundice.

Tissue degenerations with and without the concomitant action of bacteria, such as occur in intestinal obstruction and infarctions, skin burns, crushing injuries to muscle, the abuse of tourniquets and necroses in tumors, liberate substances into the circulation that are viciously injurious. More recently another harmful influence has been developed in X-ray and radium therapy. All practitioners of medicine are directly concerned in the effect of drugs. Bunting⁹ found that the

narcotics—opium, chloroform, ether and nitrous oxide—all produce acute degeneration of heart muscle. Anesthesia without operation sufficed to cause death in animals having chronic myocarditis. To these may be added alcohol, tobacco and many of the coal tar products. It is quite possible that the effect of injuries inflicted by intoxicants through interference with intracellular metabolism are twofold—reductions both in contractibility and in conductivity.

Nowhere in medicine is prevention of disease more desirable than in heart muscle, nowhere is it as certain to exceed the value of cure by the proverbial sixteenfold. A shortcoming of medical specialization has been a narrowing influence upon specialists. Remote effects of local disease, early indications for treatment, and the ultimate good and evil results thereof have been unrecognized or have been considered of too little moment compared to the immediate comfort and satisfaction of patients as well as those interested in them.

The preceding summary of the causes and effects of myocardial injuries suffices to indicate the opportunities and responsibilities of all actively interested in medicine. Likewise it is evident that those practicing surgical specialties are particularly obligated to employ methods likely to afford protection or relief and unlikely to inflict or to increase injury.

Due consideration of the heart muscle factor in disease and in treatment automatically classifies surgical patients in four groups: (a) those having intact hearts, (b) those having recoverable myocardial lesions if sources of irritation are properly eliminated, (c) those suffering from lesions whose progress can be arrested or retarded, and (d) those demanding surgical relief from pain and distress in the face of cardiac handicaps that preclude usual operative methods.

Reduced to simple terms, the requirements to be met in practice are two—diagnostic means to determine the presence and degree of myocardial injuries and a simplification of preoperative, operative and postoperative methods designed to safeguard the more severe lesions and to be at least harmless for the less severe.

Satisfactorily accurate diagnoses of degrees of cardiac incompetence are as yet impossible because there is no means of determining that most important factor, the amount of reserve power. The best index of cardiac ability to withstand

the extraordinary strains of narcosis and operation is its capability to respond naturally to slightly increased physical exertion, supplemented by careful consideration of history and of physical findings.

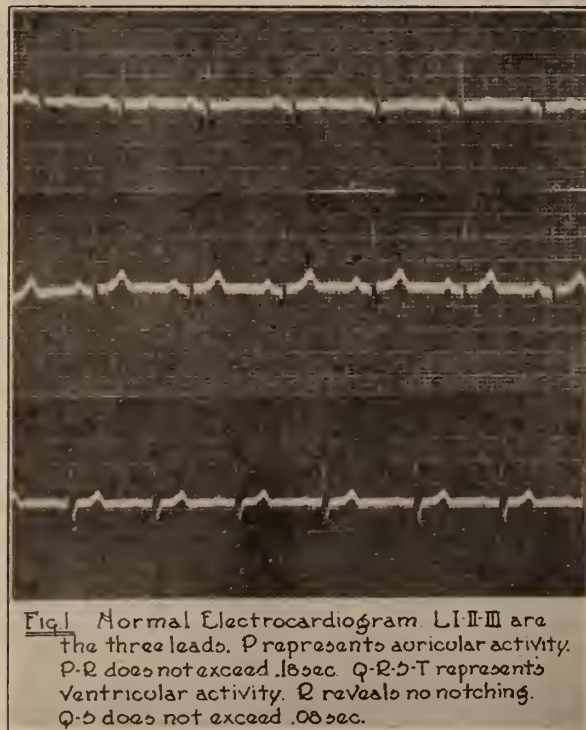
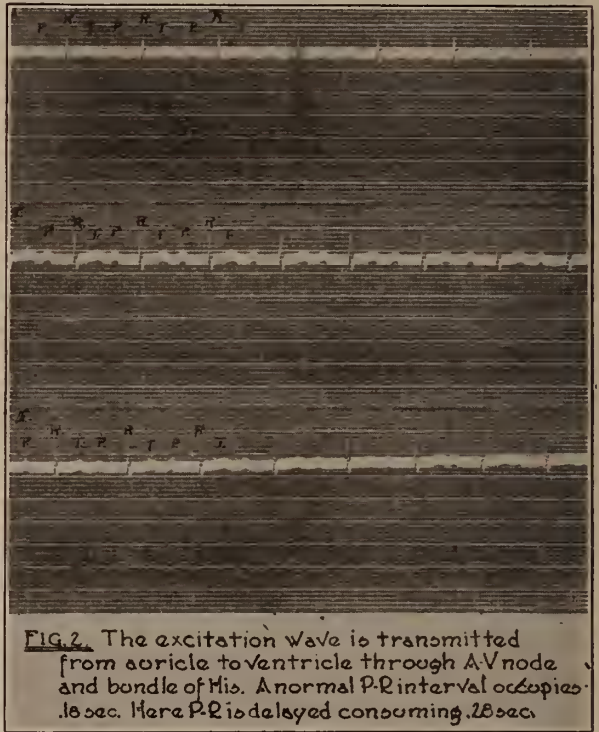
Recognition of valve lesions or of myocarditis in the general acceptance of that term is of less consequence than an appreciation of probable or possible reduction in power which may be extensive and yet independent of lesions now recognized by necropsy pathologists.

History of one or more of the etiologic factors in myocardial injury disclosed by age, habits, occupation and illness is significant but less so than unwarranted cardiac dyspnoea and tachycardia with exertion and edema thereafter.

Cardiac enlargement positively indicates myocardial deficiency but not its degree. Hypertrophy is not a sign of seriously reduced power. Atonicity and dilatation are proofs of a dangerous reduction. Hypertrophy and dilatation may co-exist in variable proportions. On the other hand

to impaired conduction through the overlying tissues, is very suggestive, as is gallop rhythm.

Functional tests are more reliable. A delayed rise in blood pressure response to exercise indicates undue myocardial fatigue. Estimations of both blood pressure and pulse rate reactions to



moderate exertion are more dependable in giving clues to the force and rate of contractions and adaptive capability, than observations of variations only in pulse rate.

The chief value of electrocardiography (Fig. 1) lies in the discovery of lesions affecting special conducting structures of the heart, the His bundle and its branches, which pass through the ventricular myocardia and terminate in the ventricular subendocardia. The tracings also may indicate myocardial as well as conduction tissue lesions, but, on the other hand, lesions in silent areas away from conducting elements may not be revealed.

One of two important electrocardiographic abnormalities may be encountered—a prolongation of the "P-R" interval, i. e., an increased "A-V" conduction time—when not of vagal origin (Fig. 2), or a bizarre notched "R" complex with increased "Q-S" interval (Figs. 3, A and B), i. e., prolonged intraventricular conduction time, the excitation wave taking an abnormal course

a normal-sized heart may be atonic and on the verge of dilatation, if the damage is recent and severe, and slight additional stress would induce serious incompetence.

Modification of heart sounds, especially muffling of the first sound at apex when not attributable

through the terminal (Purkinje) fibers. These evidences of disturbed conduction may be due to transient (recoverable) or permanent lesions, and are therefore indicative of both temporary and persistent myodegenerations. They can be pro-

4, 5, 6, 7, 8, 9). It is usually preceded by blood pressure changes of which variations in pulse

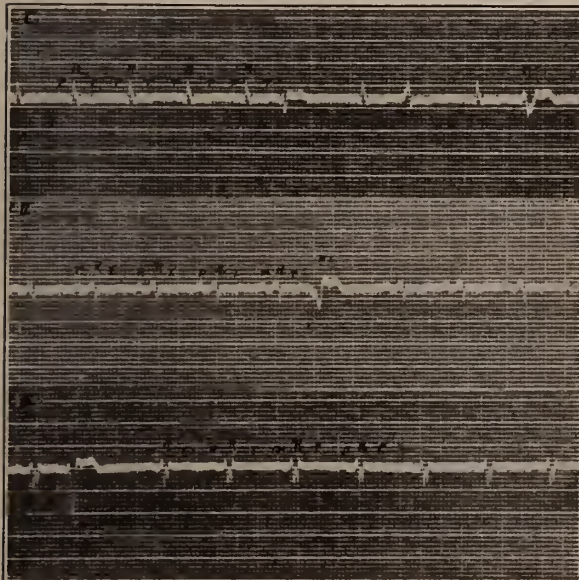


FIG 3A. Electrocardiogram revealing notched Q complex in all leads. Q-S interval at outer limits of normal. Note isolated ventricular premature contractions.

duced experimentally with morphia and asphyxia,¹⁰ a confirmation of the evidence cited above⁹ that narcosis produces myocardial injury which is demonstrable both in altered structure and function.

Evidently, if the welfare of each patient is to be considered, surgeons must develop methods of conducting operations that will minimize immediate danger of death and also liability to initiate or to aggravate permanent and as a rule progressive myocardial injuries. Thus alone can morbid states incompatible with heart muscle welfare be promptly and safely eliminated.

Fundamentally, this means controlling tendencies to increasing tachycardia and arterial hypotension, and at once suggests the methods, namely, to keep the heart rate low to prevent exhaustion and to provide an abundant volume of good blood in circulation to assure the conditions prerequisite for myocardial economy.

Tachycardia of the serious type may begin during operation but is more likely to start from several hours up to three days thereafter (Figs.

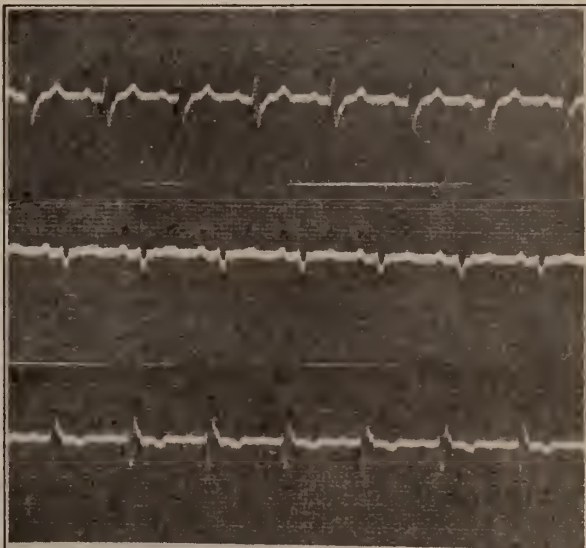


FIG 3B. Notched Q complex with delayed Q-S interval present in all three leads.

pressures are perhaps the most ominous (Figs. 10-A and 10-B). Deaths thus occasioned are attributed to shock, to postoperative exhaustion,

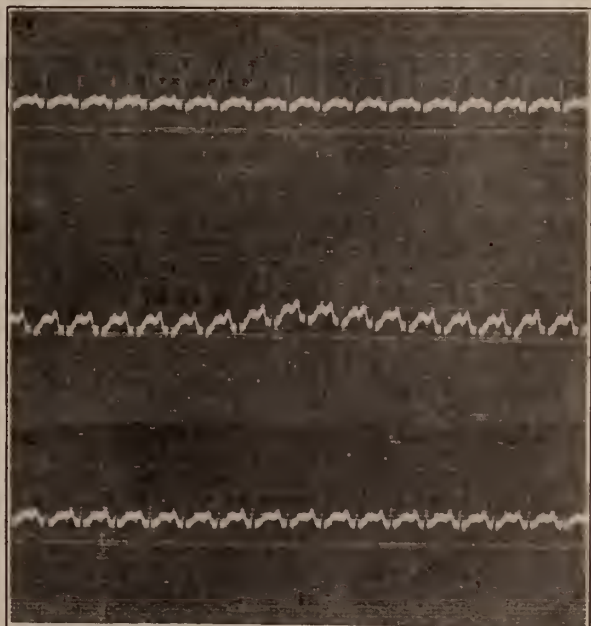


FIG 4. Auricular Tachycardia. The Ventricles respond to each auricular impulse, both chambers contracting at the rate of 208 per minute. Thyroidectomy Exophthalmic Goitre.

or more commonly to cardiac dilatation,¹¹ and usually ascribed by operators to preoperative procrastination, the hand of God or anything but the truth, a failure to protect handicapped heart muscle.

Whenever tachycardias and arrhythmias arise subsequent to operation, electrocardiograms should be promptly secured, the nature of the disturbance determined and intelligent therapy

immediately instituted. Levine¹¹ reported studies upon nine people who suffered from cardiac complications, commonly called "postoperative acute dilatation of the heart." Electrocardiographic examination showed each patient to have had an abnormal aricular mechanism. Three had paroxysmal auricular tachycardia; four had paroxysmal auricular fibrillation; and two had paroxysmal auricular flutter. Direct vagal or

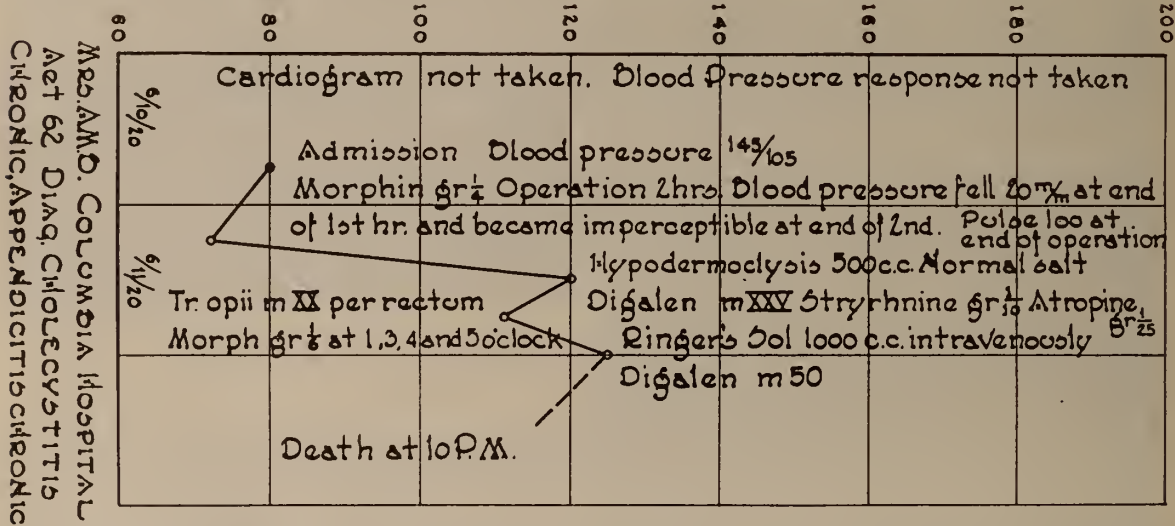


Fig. 5: Myocardial degeneration was established by history. Recent recovery from phthisis. Gas anesthesia was selected and was unsatisfactory. Local or combined anesthesia with free and early administration of glucose and digitalis intravenously might well have assured recovery.

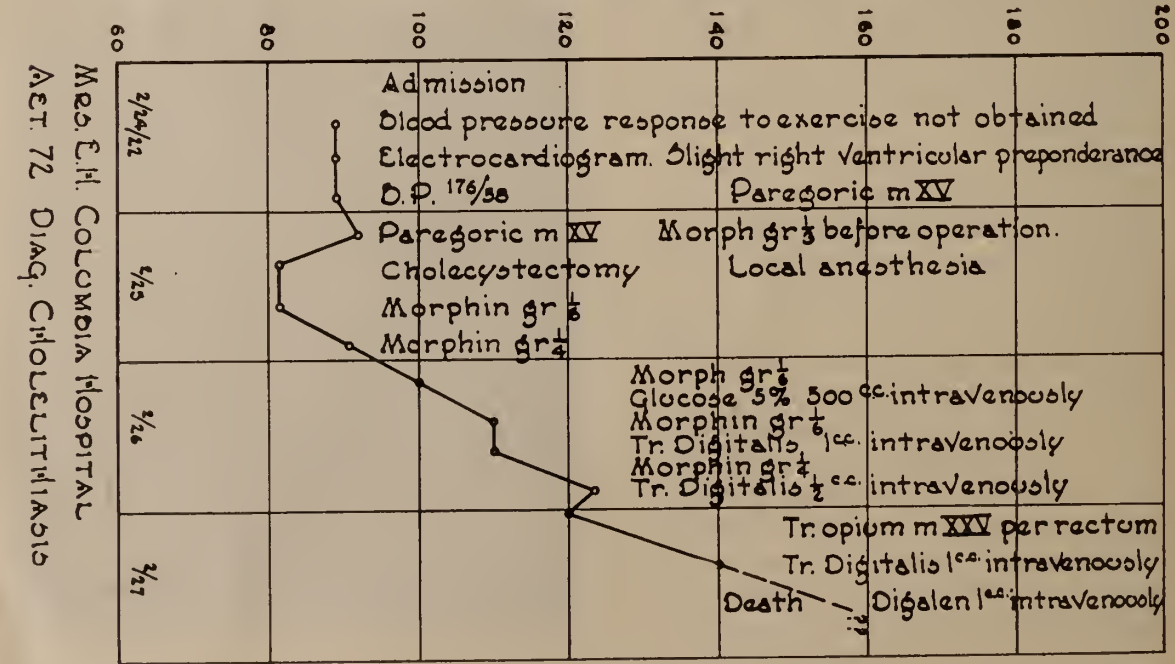


Fig. 6: Myocardial degeneration was established by history. If glucose and digitalis had been given prophylactically the first day, the tachycardia might well have been prevented even though the patient was non-cooperative and would not indulge in mental or physical inactivity.

ocular pressure proved successful in arresting paroxysmal auricular tachycardia. Proper digitalis therapy controlled the paroxysmal flutter and fibrillation.

Protective methods now available are to postpone operation if possible until competence is regained, to reduce the amount of narcotics given and to administer intravenously and generously fluids and at times digitalis before there is any evident necessity.

Crile's advocacy of the principle of treating before treatment is obviously required is sound and is upheld by the better results thus obtainable. Practically, this entails a limitation of opium to actual necessity, a more general use of local anesthesia, supplemented when advisable by skillfully administered nitrous oxide analgesia. Fluids suitable for intravenous injection are blood, hypertonic glucose and glucose and gum acacia. The amounts and rapidity of adminis-

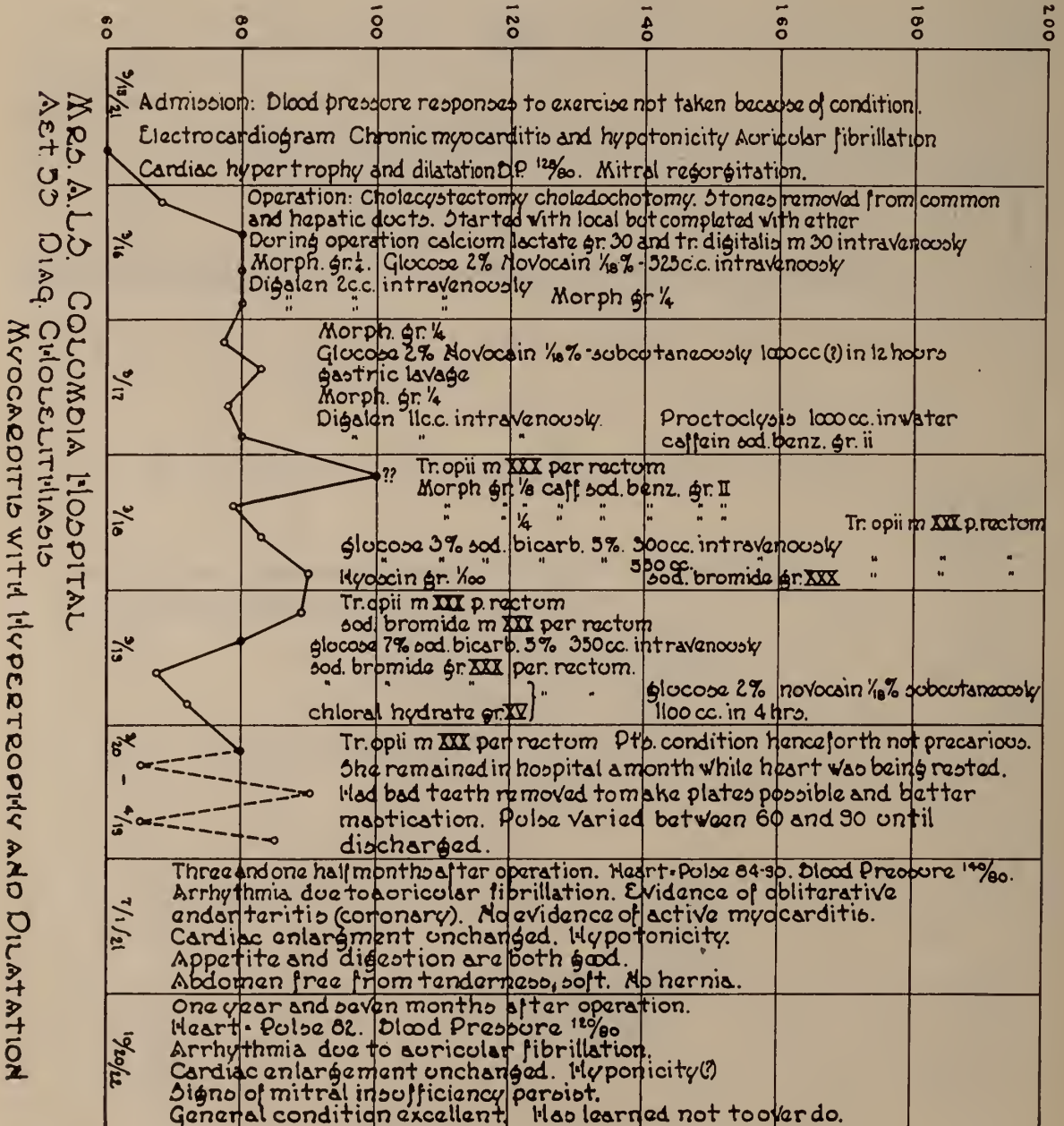


Fig. 9: Patient was known to have myocardial handicaps of most serious type that virtually prohibits general narcosis. General anesthesia had to be used while removing stones from hepatic ducts. Fatal tachycardia was prevented by giving glucose and digalen intravenously promptly, during operation, and repeatedly thereafter. She has been made comfortable and contented. Even if cardiac disability has not been reduced, it has not progressed.

tration are determined by circumstances which also indicate the need of digitalis and the amount to be given.*

*Note: Clinical observations, confirmed by Cannon's experimental evidence¹², have established two significant facts. Patients suffering from diseases causing severe myocardial injuries, e. g., acute intestinal obstruction, intestinal perforation in typhoid fever or intense jaundice, are subjected to less danger if operated upon under local anesthesia, and when in shock, which is synonymous with myocardial fatigue, they are the more capable of withstanding general narcosis if nitrous oxide and oxygen are administered and in proportion not exceeding three (nitrous oxide) to one (oxygen). Acceptance of a sound principle that whatever means are beneficial to handicapped patients will offer greater protection to the more robust patients simultaneously determines the safest form of anesthesia. Contraindications to the use of chloroform more than suffice to make its administration unjustifiable. Ether possesses the virtue of being least immediately dangerous in the hands of an anesthetist of average ability because it cannot as a rule be given too rapidly (over concentration) and cyanosis (asphyxia) is easily controlled. Nitrous oxide, when given skillfully, is the less unpleasant to take, the more evanescent and causes less ultimate injury. But, as a rule, gas is improperly administered. Induction is too

rapid and the subsequent dosage so uneven (often because the operator fails to co-operate with the anesthetist) that there are sudden increments in concentration often with rapid additions of ether vapor. Intervals of cyanosis, under these conditions, are quite inevitable. Thus the most serious of anesthetic injuries, over concentration of narcotic and asphyxia, are inflicted repeatedly, and are harmful to normal and extremely hazardous for handicapped hearts. The use and not abuse of local anesthesia requires special effort and training in methods essential to success in which the welfare of the patient and not the comfort of the surgeon is fundamental. Farr has demonstrated that it can be employed satisfactorily in most major surgery. When it is wiser to supplement local anesthesia with ether or nitrous oxide and oxygen analgesia, the local anesthetic and local anesthesia methods should be used as carefully as if they alone were available. The object is to reduce primarily the intensity of narcosis and secondarily the total amount given. The duration of administration is of far less moment. A combination of local anesthesia with inhalation analgesia makes possible a reduction of more than one-half in both amount and concentration of general narcosis. In brief, the less the concentration and the greater the evanescence of the narcotic, the better for heart muscle. However, other factors must be considered, particularly the psychic stability of patients. No rigid scheme can be adopted. This applies particularly to the use of opium. It alone can produce fatal tachycardia (Fig. 8) when given too generously, and, if withheld when its use is indicated, the results may be quite as disastrous (Fig. 11 & 12). Generally,

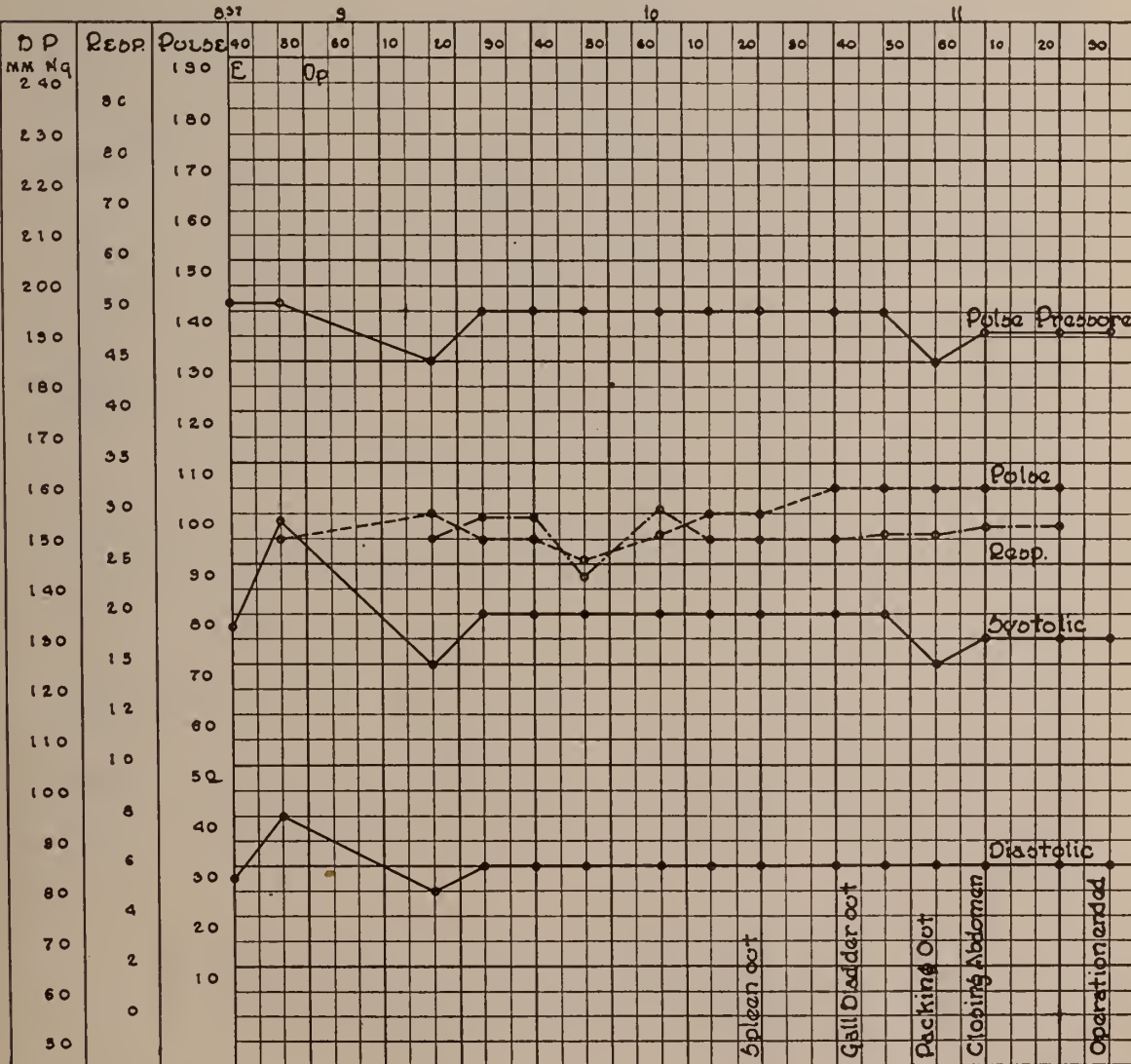


Fig. 10A: Anesthetist's record during splenectomy and cholecystectomy. Splenectomy difficult because of adhesions. Patient in good condition. Moderately severe congenital hemolytic jaundice with gall stones. In spite of long and severe operation pulse pressure remained almost constant.

it is safer to supplement smaller doses before and after operation with bromides and drugs of that ilk if entire elimination is unpracticable.

The objects of intravenous injection of fluids are to restore and to maintain the natural quality and quantity of circulating blood. Transfusion of blood from properly selected donors is superior if performed preferably by Vincent's paraffin tube or less acceptably by a syringe method. Two facts have been established, but have been given too little recognition. Grouping of individuals only is dangerously inaccurate; in addition, the cells and serum of donor should be tested against the serum and cells of the recipient to eliminate all possibilities of hemolysis. The untoward effects of sodium citrate methods as indicated by Unger¹³ and others suffice to condemn its use except in unusual emergencies notwithstanding its much heralded ease of performance and alleged safety.

Blood transfusion is not always possible and may even be undesirable. Satisfactory substitutes for blood must be of types that are retained in the blood vessels and provide excess nourishment for injured heart muscle in an easily available form. Hypertonic glucose solutions have been found to be effective in 5% to 50%¹⁴ strength and 20 to 500 c.c. in amounts. Administration must be under accurate control. A simple apparatus constructed by Thalheimer¹⁵ for this purpose, but described in the principle previously by Freidel¹⁶ fulfills requirements.

The virtues attributed to glucose solutions are many. It is

alleged to nourish the heart directly and to attract into the circulation substances from extravascular tissues, possibly salts, that are essential to heart muscle tonicity. Also it is said to supply fuel denied by defective carbohydrate metabolism¹⁷, to replace the excess fuel used in combating infection¹⁸, to be useful in supplementing or even substituting for digitalis¹⁹ and to be valuable even as a preoperative drug²⁰ in making anesthesia easier of induction. There are a few vices though not widely advertised. Any intravenous injection is discomfoting and may even cause a fatal syncope²¹. If impure or improperly sterilized and thereby caramelized, glucose is dangerously irritating and causes severe chills when given intravenously or focal necroses when injected subcutaneously. Glycosuria can be induced, also diuresis, but seldom to an extent of material disadvantage, if rational precautions are taken. Isotonic glucose solution can be given subcutaneously and continuously as advocated by Bartlett²² with great benefit or glucose may be administered per rectum²³ in considerable concentration without irritation or inhibitory influence on bowel.

Reduction of velocity of blood stream results in stasis in various organs and tissues.²⁴ When this stasis amounts to a material reduction in volume and increase in density of circulating blood, it is called exemia and held to be an evidence of shock. Exemia (intravascular stagnation) may or may not be aggravated by anemia. When anemia is relatively slight, auto blood transfusion can be effected simply by overcoming the exemia, i. e., by increasing the volume and velocity of the

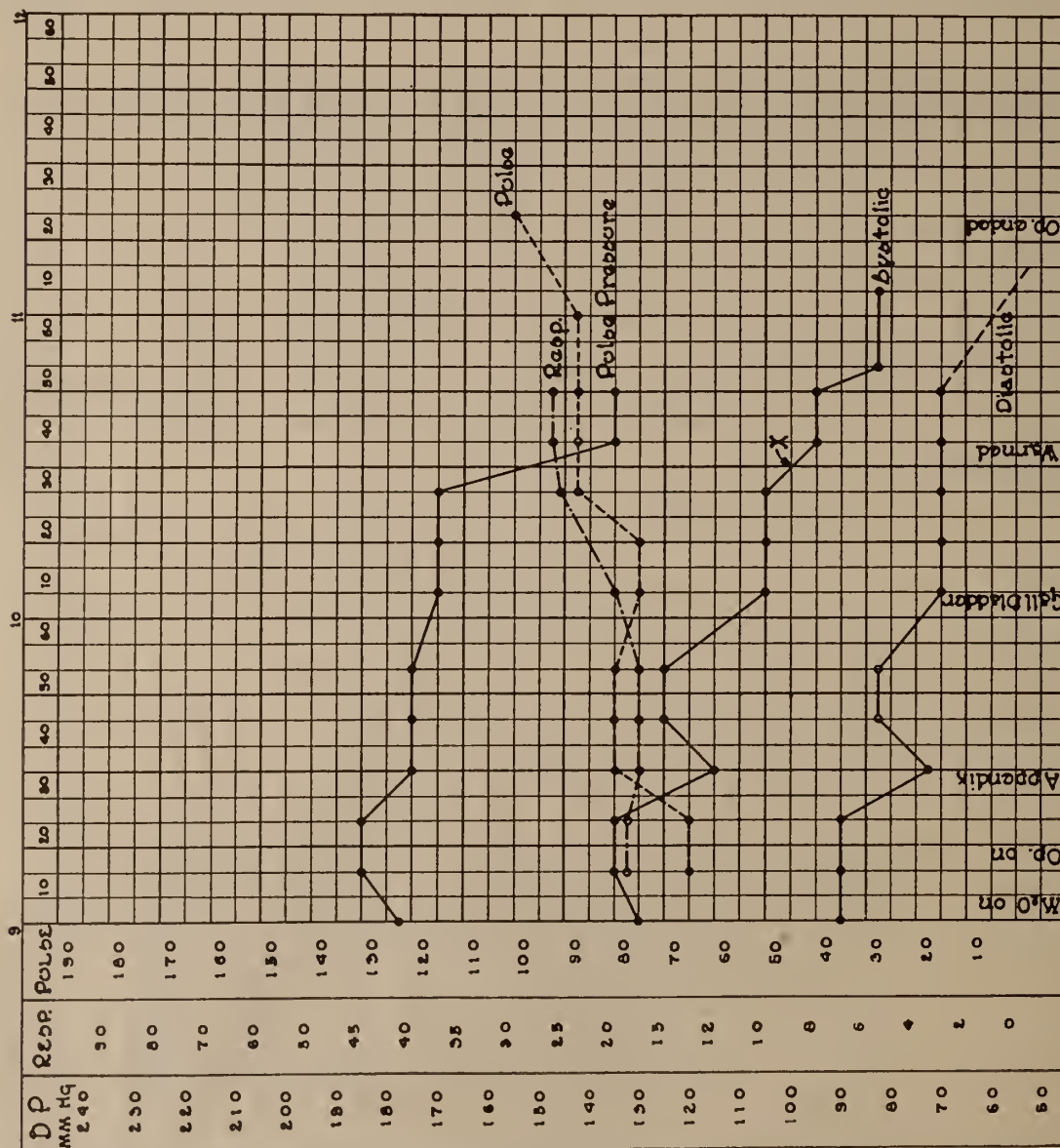


Fig. 10B: Anesthetist's record during cholecystectomy and appendectomy. Illustrating an ominous fall in blood pressure. This patient made a good recovery but would have been far safer had she received glucose (possibly gum glucose) and digitalis when anesthetist gave warning (X).

each patient's myocardium was less favorable than was suspected.

Preparation for operation cannot be made a routine. Patients with weak hearts should be

given necessary rest in bed, cajoled into complacency and assured the proper quantity and quality of blood. Occasionally, longer periods, during which gradually increasing outdoor exercises, at

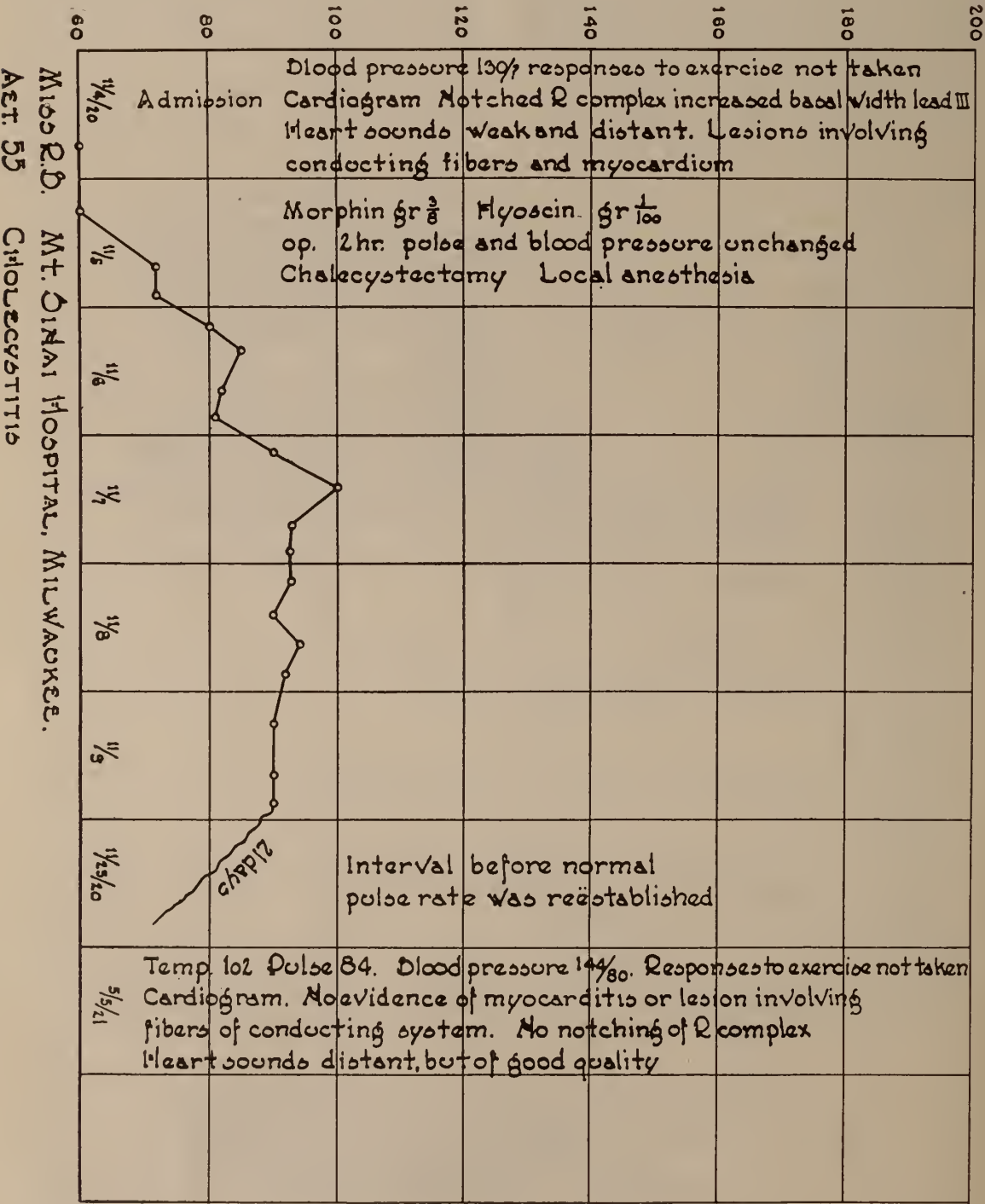


Fig. 12: Moderate tachycardia of auricular origin reaching its peak the second day following operation and continuing during three weeks of bed rest. If 500 c.c. of 5% glucose and 3 c.c. of tincture of digitalis (intravenous) had been given immediately after operation, and repeated the next day, convalescence might have been shortened. The subsequent history of this patient has proven that even very serious myocardial defects (as demonstrated in the electrocardiogram) may clear, if the source of cardiac irritation is promptly removed. It is noteworthy that an electrocardiogram taken six months later revealed no abnormality of "QRS" group.

times digitalis (unless there be delayed conduction), sunshine, etc., may materially enhance the chances of recovery. Too little preparation, particularly of those who recently have had a severe intoxication, as from tonsillitis, or too prolonged preparation of those having chronic obstructive intestinal lesions are to be avoided. The average patient does not need catharsis. When this is desirable the least noxious dose should be taken after lunch of the day preceding operation after which fruit juices and water should be consumed plentifully. Sleep is so desirable that soporific drugs are indicated. There is no excuse for making the morning of operation hideous by early awakening for shaving, enemas and other forms of avoidable cruelty. Quiet is to be secured after the preliminary drugs are given and above all patients should so far as possible be made physically and mentally inactive. There is no more reason for permitting a robust individual to walk to an operating room and climb upon a table than to allow this avoidable strain to be accepted by one suffering from aggravated hyperthyroidism. The latter patient would show it more, but both pay for this lack of consideration of their comfort and welfare.

A final selection of the type of anesthesia to be employed may not be possible before a patient is on the table. Many desire a local; for some it is unwise or impossible. The average individual is best served by local infiltration supplemented with gas oxygen analgesia. During operation, anesthesiologist or surgeon can usually recognize in advance of necessity indications for giving glucose, perhaps with digitalis (Fig. 9). Since no harm can be done, there should be no delay. Timely aid can prevent what delayed treatment cannot trophy and spasm, the clinical course and hemorrhelieve. This applies particularly to patients with damaged hearts, who have been subjected to excess strain, particularly that of unavoidably deep anesthesia. Intravenous injections may also obviate the necessity for terminating an operation before its object has been achieved.

Postoperative care is more effective if conducted prophylactically rather than curatively. Blood, glucose, gum-glucose with or without digitalis provide the best means to prevent serious tachycardia. Fluids by mouth, by rectum or subcutaneously are also useful. Personal attention can curtail the need for narcotics, and, by cooling the febrile and warming those who are cold, re-

duce discomfort and the expenditure of energy. Later treatment of those suffering from myocardial handicaps is too obvious to permit of discussion, save of one point. They should be kept prone until after all tendency to tachycardia is past and then allowed to increase activities only as rapidly as cardiac competence permits. Preferably the after care should be permanently under the direction of a competent internist.

It is not presumed that some patients suffering from myocardial handicaps of the more severe types cannot survive general anesthesia or that all patients are permanently injured thereby. It is, however, maintained that most patients can be operated upon in spite of much weakened hearts with likelihood of immediate survival, and not only without danger of cardiac damage, but with prospect of material benefit. No group of patients illustrates this point better than the sufferers from chronic cholecystitis who commonly have myocardial injuries. Cholecystectomy under local anesthesia (Fig. 12) has been followed by myocardial recovery even after cardiograms showed a severe type of lesion indicative, if permanent, according to Willius, of a life expectancy of $8\frac{1}{2}$ to 22 months. Others have been benefited materially if to a less degree (Fig. 9). They were enabled to eat again without fear of distress and a source of continued myocardial irritation was eradicated. Cholecystostomy under these conditions is to be avoided. Recurrences are too common, and in addition the dehydration from free bile drainage can cause a fatal tachycardia. On the other hand cholecystectomies under general anesthesia, or under local supplemented with too large doses of morphin, have been followed with tachycardia at times uncontrolled when intravenous injections were not used (Fig. 8) and occasionally when they were employed tardily (Fig. 6).

As a result of too frequent disasters following operations upon the gall bladder, internists who appreciate the untoward influence of chronic cholecystitis upon heart muscle are loath to sanction surgical treatment, particularly cholecystectomy. More unfortunately still there is a procrastination when the greatest benefits are obtainable, namely by prompt intervention at the time when the indications are most urgent prophylactically but are assumed to be insufficient to justify the supposed risk.

Another category of maladies deserves special

mention. Patients suffering from intrathoracic lesions have also been given too little consideration from the standpoint of protection and rehabilitation of function. For example, the most common ailment, empyema, has been treated so as to "cure" the suppuration but without reference to subsequent disability which may average 50% with so-called perfect results. This is largely avoidable and is due to failure to appreciate the interdependence of respiratory and circulatory mechanisms and to realize that the functional integrity of both depends upon maintenance or restoration of normal vital capacity of the lungs. Likewise pericarditis with effusion is frequently overlooked and more frequently untreated when, as Whittemore²⁷ has proved, relief is safely and easily obtainable. Pericarditis with parietal adhesions is similarly neglected although simple eostatectomy (eardiolysis) would materially reduce the cardiac burden. Indeed the whole field of intrathoracic therapy is open to reconsideration upon the basis of rehabilitation of function which lies chiefly in a reduction of heart muscle burdens.

In effect, methods now available make it possible to afford surgical relief to patients so that heart muscle may not only be protected from material transient or permanent injury but be assured ultimate benefit when the disease for which operation is undertaken exerts unfavorable influence upon its integrity. As Finney has so often stated: "Surgery has advanced to a stage when it is no longer the ninety-seven patients out of a hundred who require attention, but the ninety-eighth, ninety-ninth and one hundredth now accepted as inevitable fatalities who demand consideration." We believe it possible to go a step farther by adopting the philosophy that the measures designed to safeguard the last three should be applied to enhance the welfare of the ninety and seven. It is wiser to prevent sheep from straying afar than to indulge in the overexertion required to restore the wanderers. Though the occasion for rejoicing may be great when successful, avoidable failure attributable to the methods in vogue are many.

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DISCUSSION

Dr. A. J. Carlson, University of Chicago, Chicago, Illinois.

Mr. President and Gentlemen: I really haven't anything to say, except that I should like to second the effort made by Dr. Yates. The essential point in his paper, as it strikes me now and has a long time, is that many surgeons sin in keeping the patients too long under anesthesia. You have undoubtedly seen the same thing which I have seen, of an inexcusably slow surgeon putting a patient under ether out in the hall or in another room, half an hour before he is ready to operate; he then starts to wash his hands, smoking a cigarette meantime and visiting with other physicians, and keeping the patient under anesthesia possibly 3 or 4 times the length of time that is necessary for the operation. For a number of years I have been trying to impress on the medical students, what does not seem to be realized generally, that the anesthetics are poisons, and the least you can give of the poison, the better. Now Dr. Yates has touched on another point still more physiological, namely, that you should diagnose and try to alleviate any symptom which is below par in your patient. Now that is a hard thing to do. It is easier to write a paper on, Dr. Yates, than it is to do it, because while we appreciate those heart conditions, many of the things we do may not help the heart very much. But what I plead for is that point of view, that those of you who practise surgery actually take those things into consideration and develop speed, and have your patient practically out of your anesthesia when your last stitch is taken instead of, as in many cases in the past, so doped with ether, if not chloroform, that it takes hours and hours for them to come out. That is what I would call, and what Dr. Yates would say is the physiological point of view, the bringing in to your practice of surgery something else than mere plumbing. If that is done, gentlemen, I do not believe that anybody in this State Association or anywhere else would get up and recommend a gastro enterostomy for a slight diverticulum in the stomach. Most of you know as well as I know, that our best surgeons are now undoing their past gastro enterostomies, including the Mayo people.

There was one point in Dr. Yates paper that I wanted to ask him about. I did so personally. It is a rather important point. Dr. Yates was in Dijon,

and he saw some of Mountain's work, and Bullis's work in connection with the gum solution instead of the ordinary Ringer solution or salt solution, for profusion. Now Yates knows as well as you and I know that even during the investigation of shock and prevention of shock during the war, and in the laboratories, experiments and observations of patients came out, and it has come up since then in a recent paper in the A. M. A. on the use of gum solution. I wanted to ask Dr. Yates, because he is competent to answer that question, whether we are yet justified in using a gum solution as a helpful, or in every case as a harmless medium for helping low blood pressure, or breaking up the circulation. I am not dogmatical on that point. I want to know because of this conflicting situation in the literature.

Dr. Edward Evans, La Crosse:

Mr. Chairman and Gentlemen: I should like to draw attention to a very significant thing that is the discussion of a surgical paper by a physiologist; in other words, the significance of physiological surgery. Dr. Yates' paper, I think, is one of the best papers ever presented before this society, drawing our attention to the class of cases that are very often not sufficiently studied by an operator, in contradistinction to the surgeon. I was very glad also to have Dr. Yates emphasize, perhaps not as strongly as he ought to emphasize the significance of the ordinary examination of a patient for myocardial weakness. He dwelt on the necessity of examining those patients as to how they resist ordinary fatigue. McKenzie, I think has called attention to the great significance of this, and that instead of the ordinary or extraordinary tests for myocardial weakness, we should get the patient's past history, and see how they resist fatigue, in the ordinary things they do, i. e., as to how the heart resists ordinary fatigue. I think it is of very great significance in some of the cases mentioned, especially the chronic colloid goiter, and the gall bladder patient that you make a very careful study of their heart before operating on them, and come to what we might call a physiological diagnosis, as to how far we can go in operating on those patients, or, in some of them I believe, not operating at all.

Dr. A. P. Crowell: I should like to ask Dr. Yates if I am right in assuming from hearing his paper if he advocates the use of local anesthesia as a means of doing away with myocardial degeneration in general anesthesia?

Dr. John L. Yates, Milwaukee, Wis.

This paper, due to my negligence, was given the wrong title. It should have been "myocardial deficiency" instead of "degeneration." Dr. Rogers is responsible for the cardiac examinations. When the paper is published, the methods he uses will be mentioned. They are satisfactory in disclosing myocardial deficiency. The exact nature of that deficiency is not always so important, though we prefer, if possible, to get a cardiogram for more accurate determination. The detail of real importance is to learn from the patient, the patient's history and

examination if there is an excuse for even a suspicion of myocardial deficiency; if so, that suspicion is developed, and if there is no excuse, we suspect it a little bit anyhow. Upon that basis the attempt is made to employ the safety-first methods advocated by Crile by trying to get the treatment to the patient before the patient needs the treatment.

Dr. Carlson spoke about the reduction of the anesthetic. That can be secured by using local anesthesia alone or combined with analgesia. Whether or not we agree with Crile in his conception of anoci-association, the fact remains that by using local anesthesia, following the methods so well perfected by Farr, at times combined with gas analgesia, it is possible to get by in a large majority of major operations without dangerous narcosis or even a stage of deep anesthesia. We believe from experimentation and observation that it is the deep stage and not the duration of anesthesia that is very dangerous. Therefore, we believe that if, for instance, it is possible to perform satisfactory cholecystectomy with local anesthesia supplemented, if necessary, by gas oxygen analgesia, in an hour or in an hour and a half, without once having that patient in a stage of anesthesia, the immediate danger is almost eliminated and as the effects of gas are so evanescent, the possibility of ultimate harm is likewise minimized.

Dr. Carlson questioned the use of gum acacia. We have all heard the enthusiastic condemnation of gum even unto the third and fourth generation of them that hate it. We have seen editorials in the Journal of the American Medical Association advancing, it seems to me, specious arguments against gum. In the face of this we have the very accurate experimental work conducted by Baylis and his group, subsequently by Cannon and his group, and later by the shock teams in the B. E. F. and the A. E. F. We are convinced if gum is used when gum should be used, if gum is prepared as gum should be prepared, and if gum is used as gum should be used, it is innocuous and may be invaluable.

Dr. Carlson asked why we added gum to glucose. The answer is simple. There are certain types of exemia (by exemia we mean intravascular stasis due to a reduction of the blood velocity causing capillary stasis in virtually every organ) when there is not only a reduction in the volume of blood in currency, but also the blood actually in currency is over-concentrated. Under such conditions an auto-blood transfusion in that individual can be performed by washing out the large bulk of blood stagnant in capillaries, particularly that in the intestine, skin, and we believe in the lung, by increasing the volume of blood and thereby increasing the velocity of the blood in circulation. We have tried the relative values of glucose alone, and gum-glucose under similar conditions, occasionally in the same patient, and have concluded that benefits may be obtained from gum-glucose that are greater than from hypertonic glucose alone.

There is no need to discuss the relative values of

gum-glucose and blood transfusion. Blood is superior so far as we know under all conditions and is the only reliable means to combat advanced anemia. Blood transfusion is not always possible nor always desirable. The least unsatisfactory substitute for full blood under critical conditions is six per cent gum acacia in hypertonic glucose up to sixteen per cent as recommended by Erlanger. Whether or not in a given instance to use gum glucose or glucose is a matter of opinion. These means do permit prevention and relief of exemia and, by furnishing an adequate volume of circulating fluid, give the heart muscle the proper hydraulic conditions and fuel to work more economically.

HYPERTROPHIC PYLORIC STENOSIS WITH LARGE MULTIPLE EROSIONS. REPORT OF A CASE IN AN ADULT*.

WILLIAM A. BRAMS, M. D.

and

I. PILOT, M. D.

From the Department of Pathology and Bacteriology,
University of Illinois, College of Medicine.

CHICAGO

Gastric ulceration in which the lesion is multiple, irregular and shallow is not a common condition if one is to judge its frequency by the number of reports in the literature. This comparative rarity and the unusual clinical course and anatomical findings in the case described by us led us to consider it of sufficient importance to warrant its publication.

The patient, a white male, aged 46, waiter and single, was admitted to the Cook County Hospital on December 11, 1922, with a provisional diagnosis of carcinoma of the stomach. He had been ill for eight months with pain in the abdomen, marked loss of weight, strength and appetite and had been vomiting for the last two months.

The pain began in the mid-epigastrium, almost immediately after eating and was at first relieved by vomiting but this relief did not occur in the last few months of his illness. The pain began as an abdominal distress, then developed to a dull pain after meals in the last few weeks and was almost continuous toward the end of the course of the illness.

Vomiting occurred about fifteen minutes after the beginning of the meal and the vomitus consisted of mucus, food, and dark brown material

resembling coffee grounds. Other symptoms were constipation, anorexia, loss of strength and a loss of weight of about seventy-five pounds.

He had typhoid at the age of sixteen, gonorrhea at twenty and denied syphilis. Alcohol was used in moderation. The family history was of no importance.

The examination revealed a very emaciated white male. The pupils were equal and reacted to light and accommodation. Nothing abnormal was found in the chest. Palpation of the abdomen revealed a large, hard, tender mass in the upper left quadrant of the abdomen. The tumor was as large as a fist and was movable. The liver was enlarged and reached to the level of the navel. The spleen could not be palpated. The reflexes were normal. The blood showed 3,140,000 red cells, 10,200 leucocytes and a practically normal differential count. The urine was normal. The Wassermann of the blood serum was + + + +. The stomach contents one hour after an Ewald meal showed a total quantity of 150cc, free HCL 0 and total acidity 3 degrees. A motor meal was given and 300cc were removed after six hours. The stools were alkaline in reaction but no report was made as to blood.

The x-ray examination revealed a large six-hour residue; the lesser curvature was two inches below the iliac crests and a fairly constant notch was seen on the greater curvature at the pars media. The prepyloric region remained constricted constantly and was funnel shaped. The margins of this region were smooth but the density of this portion as viewed from the antero-posterior direction was irregular.

He died five days after admission. The autopsy was performed by Dr. D. J. Davis of the University of Illinois and in brief showed the following:

The body was markedly emaciated. The teeth were in very poor condition and several cavities and pyorrhea were present. The heart showed a patent foramen ovale and a moderate sclerosis of the coronary arteries. The aorta was practically normal. The lungs contained one healed focus of tuberculosis with bilateral broncho-pneumonia at the bases. The appendix was free and uninvolved. The glands at the lesser curvature of the stomach were very much enlarged and pink but were not hard. The liver was three fingers breadth below the costal arch in the axillary line and was smooth, showing no metastasis or other changes. The stomach was markedly

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dilated and contained about 500 cc of yellowish fluid. The pyloric opening was narrowed. The mucosa of the stomach was red with little evidence of rugae. This smooth surface of the stomach closely resembled that seen in atrophic gastritis.

A large, saddle-back, irregular, shallow ulcer was found on the lesser curvature at the junction of the middle and left thirds of the stomach, (Figure 1). The ulcer straddled the lesser curvature, involving the anterior surface more than the posterior. The greatest diameters of this ulcer were 7×4.5 cm and the depth about 1.5 mm. The margins were slightly rounded and distinct but were supple and not undermined nor swollen. There was no zone of hyperemia in the vicinity of the ulcers. The entire ulcer base was finely granular, clean and nearly of the same color as the surrounding mucosa. No infiltration, thickening or hardness was found anywhere in the vicinity of the ulcers. Four smaller and irregular ulcers, similar in character to the one just described were also present. One was 3×1.76 , was very shallow and was located on the lesser curvature, one cm. from the pyloric orifice. Another, more annular, 2×1 cm. was also present on the lesser curvature and about midway between the esophageal and pyloric orifices. Another, somewhat stellate shaped ulcer, was found on the greater curvature about 5 cm. from the pyloric orifice and still another was located close to the one just described. The peritoneal surface was normal. No ulcerations were found in the duodenum or intestine.

The cut section of the stomach wall in the region of the ulcers showed that the lesion was at the expense of the mucosa only and that the other layers were not involved in any way.

The pylorus showed some very striking features. The mucosa was atrophic and showed the same general changes previously described. The submucosa was also of normal thickness and showed nothing pathological either on gross or microscopic examination. There were no vascular changes either in the mucosa or submucosa. The wall of the stomach at the pylorus measured ten mm in thickness and this enormous thickening of the wall was due to an hypertrophy of the inner circular muscle layer which formed seven-tenths of the entire thickness of the wall. The usual microscopic changes of hypertrophy of muscle tissue were found. There were no fibrosis, infil-

tration or other evidences of inflammatory reaction in the muscularis. The outer muscle layer was of normal thickness and was free from pathological changes. The serosa was unchanged. The muscle layers in the duodenum were normal and there was no evidence that the hypertrophy of the inner muscle layer of the stomach extended beyond the pylorus proper.

The microscopic examination showed the following changes; (Fig.2). The peritoneum was unchanged. The same was true of the outer and inner muscle layers except as already noted in the pyloric region. The submucosa was not thickened and contained a moderate number of capillaries; some of the veins were dilated, es-



Fig. 1. Pyloric portion of the stomach showing hypertrophied musculature (a), large shallow and irregular erosions, (b).

pecially just under the erosions. A very moderate degree of endarteritis was present but the veins were unchanged. There were no vascular changes or infiltrations about the vessels as described in syphilis of the stomach. There was no thrombosis of the vessels. The muscularis mucosae formed the base of the erosions, under which the layer was somewhat thickened and slightly fibrosed. There was no infiltration of this layer.

The mucosa beyond the erosions could not be accurately studied because of the post-mortem changes which had set in. The base of the erosions was formed of a diffuse lymphocytic infil-

tration and covered by a thin layer of fibrin and necrotic tissue. Except for the infiltration, there seemed to be no marked inflammatory reaction or hyperemia of the mucosa. Numerous Russel bodies occurred. No evidence of malignancy or hemorrhage in or near the erosions was found. The erosions did not involve the entire thickness of the mucosa in some of the smaller lesions. The sections stained with Weigert elastic tissue stain showed a moderate degree of endarteritis but not more than is found in any long standing non-specific inflammation. The elastic tissue of the muscularis mucosae was diminished and was completely absent in some places under the erosions (Fig. 3). Sections were stained with methy-



Fig. 2

Fig. 2. Base of erosion showing round cell infiltrate at base, (a) covered by a layer of fibrin and necrotic tissue, (b) and moderate dilatation of the veins of the submucosa under the erosion, (c).

lene blue, Gram, Ziehl-Nielsen and with Levaditi stains. Only a few Gram positive, long bacilli were found near the surface. An occasional Gram positive coccus was also found in this region. No tubercle bacilli or spirachetes were seen.

A search of the literature was made for reports of multiple shallow and irregular ulcerations or erosions of the stomach and the following were the conditions most closely resembling those found in our patient.

Dieulafoy¹ described a condition which he called "Exulceratio Simplex." The onset was sudden with profuse hematemesis and without previous digestive disturbances. The anatomical findings

were an acute ulcer which was usually round or oval but sometimes was stellate. The ulceration was shallow, usually limited to the mucosa, supple and the margins were not thickened. The veins and capillaries of the submucosa were somewhat dilated and a moderate endarteritis was found. Small miliary abscesses were found in the mucosa and Dieulafoy thinks these were the starting points of the ulcers. Our specimen differs from this condition in that no such abscesses were found and by the more chronic course clinically and anatomically as evidenced by the lymphocytic infiltration. There was no hematemesis either at the onset or at any other time during the course.

Another form of ulceration described by Dieulafoy is the pneumogastritis in which the mucosa showed pin-head, hemorrhagic erosions of the pylorus. The lesions and glandular tissues contain numerous pneumococci derived from pneumococcal infection elsewhere in the body. There was no such infection in our case and the stains for bacteria in the tissues showed no pneumococci.

W. R. Stokes² described a diphtheritic ulcer of the stomach which occurred during the course of a pharyngeal diphtheria. The ulcer was shallow, 2.5x1cm. in diameter and was situated on the greater curvature near the pylorus. The base was covered by a dark yellow, almost black membrane under which was necrotic tissue. The ulceration reached only to the muscularis and the infiltration was chiefly polynuclears. Numerous diphtheria bacilli were found in the ulcer and necrotic tissue. The condition differs from that seen by us that the causative disease and organism were absent in our case.

Tuberculosis of the stomach has been described by Reigel³ and Brunner⁴. There were miliary nodules in the serosa and in the ulcer area. The base was cheesy, the margins thick, granular and undetermined. Giant cells, necrotic areas and tubercle bacilli were found. The condition is usually associated with tuberculosis elsewhere in the body. Our patient had no active tuberculosis; the margins of the ulcer were not thick or undetermined; there were no nodules on the serosa or in the ulcer and no tubercle bacilli were found in the tissues.

Pilcher,⁵ described a condition in which there were multiple non-contiguous erosion or ulcers of the mucosa which sometimes reached to the muscularis. There was a round cell infiltration

and engorgement of the vessels in the submucosa in some cases. The stomach contained large numbers of streptococci but no statement was made if the bacteria were in the cavity or wall of the stomach. It is interesting to note that more than half of the patients had abdominal trouble elsewhere, such as gall bladder, appendix, or pancreas. A large number had pylorospasm which was demonstrable at operation. These cases resemble ours in several respects. Both had achlorhydria, pylorospasm and superficial erosion of the stomach mucosa. The difference lies in the large number of streptococci found by Pilcher and by the abdominal pathology found elsewhere in the abdomen which could account for the pylorospasm.



Fig. 3

Fig. 3. Weigert elastic tissue stain showing a moderate degree of endarteritis but no involvement of the veins.

An instance of large, superficial erosion was reported by R. Langerhans⁶. The patient was a female who had had eclampsia for several days. The autopsy showed several erosions, some of which reached six mm. in diameter. There was no evidence of uremia or renal involvement in our patient and the lesions were of much larger size. The etiology of the case reported by Langerhans was not the same as in our patient.

The erosions described by Einhorn⁷ were characterized by the finding of small pieces of mucosa in the lavage water. There was pain after meals and the acidity of the stomach contents varied. The shreds of mucosa showed good pre-

servation and many extravasated blood cells. The largest piece recovered was 4 cm. in diameter. Little anatomical study has been made of this condition but it probably corresponds to the well known form of erosion seen in some stomachs in which the eroded area is small, and shows hemorrhagic reaction. This condition differs from that observed by us in the absence of pyloric hypertrophy and spasm, the clinical course and hemorrhagic features in the recovered pieces of mucosa.

Sansoni⁸ described a condition which he called "Gastritis Ulcerosa Anachlorhydria." There seems to be little difference between this condition and that described by Einhorn. There was an absence of HCL and hematemesis was sometimes present. The points of difference when compared with our case are the same as described under the erosions of Einhorn.

Nauwerck reported an instance in which there were multiple ulcers and erosions of the stomach. The ulcers were in various stages of healing; some were completely healed with scar contraction while others had completely perforated the entire thickness of the stomach wall. There were also hypertrophy of the pyloric wall and absence of free HCL. Our case had no deep ulcerations, the erosions were all of about the same age and there was no evidence of hemorrhage in the vicinity of the lesions.

Shallow ulcers with stellate erosions were described by D. Gerhardt¹⁰ in the stomach of a patient who died of pulmonary tuberculosis. The lesions were up to 6mm in diameter and were multiple and shallow. The mucosa was infiltrated with round cells and lymphocytes and some of the deeper ulcers showed a terrace formation of the margins. There was much extravasated blood in the interstitial tissues and at the base in one of his cases. The small size, signs of recent inflammation and marked hemorrhagic character differentiate it from the lesion found by us.

Axel Borbjärg¹¹ described two cases in which there were abdominal pain, vomiting, emaciation and x-ray findings of pyloric stenosis. Operation revealed a large shallow erosion. Microscopical examination showed a purulent involvement of the deeper layers in one case and considerable perivascular infiltration in the other. There was no malignancy.

Syphilis of the stomach was at first suspected

in our patient in view of the positive Wassermann and the unusual form of the erosions. Closer examination at once showed that this was not the case as the submucosa was not thickened, there were no panphlebitis or panarteritis, no perivascular or diffuse infiltrate comparable to that seen in syphilis of the stomach and no military gummata as described by one of us¹². There were no gross or microscopic luetic changes in other parts of the body.

Consideration as to the probable comparative duration of the pyloric hypertrophy and the erosions found in our case leads us to believe that the hypertrophy was the older process. This assumption is based on the enormous degree of hypertrophy found, a degree which must have taken several months for its full development. The absence of any evidence of inflammatory reaction in the inner muscular layer which might have caused a more rapid thickening of the muscularis further supports this view.

The shallowness of the erosions, the comparatively slight degree of round cell infiltration at the base and sides and the absence of vascular changes of any degree, especially of endarteritis such as is found in the vicinity of almost any chronic inflammation leads us to assume a more recent origin for these defects in the mucosa. This view is further supported by the well known fragility of the mucosa in achlorhydria,¹³ a condition which was certainly conducive to mechanical injury from any cause.

It is rather difficult to assign a direct cause for the erosions. That the lesions were not caused by vascular changes with resulting anemic necrosis is evidenced by the failure to find thrombosis or embolism of the vessels or sufficient changes in the vessel walls themselves. There were no hemorrhagic zones at the site of the ulcerations which could account for the loss of substance by small hemorrhages in the mucosa with subsequent digestion of these areas as a starting point for the formation of the erosions.

Postmortem changes or gastromalacia could be ruled out by the presence of a distinct round cell infiltration at the sides and base of the lesions and by the coating of fibrin and necrotic tissue on the base of the erosions while the adjoining portions of the mucosa were still in a fair state of preservation and showed none of these changes.

Bacterial invasions as described by Rosenow¹⁴ can be ruled out in view of the absence of

bacteria in or near the erosions and by the absence of marked inflammatory reaction.

The absence of free HCL speaks against auto-digestion but the fragile condition of the mucosa in achlorhydria could easily have been mechanically injured by retained particles of coarse food. The x-ray showed a marked retention in the stomach and this could certainly have been a factor in such an injury. There can be little doubt that the development of the erosions increased the pylorospasm and that this aided in the development of the pyloric hypertrophy.

The hypertrophy and spasm of the pylorus are not easily explained. It is possible that it was the remains of an infantile pylorospasm which was not of sufficient degree to cause marked disturbances. The literature contains seven reports of idiopathic spasm and hypertrophy of the pylorus in the adult (¹⁵, ¹⁶, ¹⁷, ¹⁸, ¹⁹). These were verified at the autopsy or operating tables and in none was there any pathology elsewhere in the abdomen which could account for the spasm by a reflex or other mechanism. The same was true in our case. Riegel,²⁰ Boas²¹ and Schnitzler,¹⁶ believe that it is a motor neurosis or is due to some nervous disturbance. The case reported by Nauwerck will serve as an example. The patient was a female, age 23, who was ill for one year with anorexia, severe pressing pain in the epigastrium after meals and sour eructations. Vomiting occurred two to three hours after meals later in the course. The vomitus was copious, acid and showed some signs of long retention in the stomach. Examination of the patient showed marked emaciation, the stomach contents showed some blood and was anacid later in the course of the illness. The stomach was markedly enlarged and a sausage shaped tumor was found to the right of the navel. The mass was smooth and movable. The autopsy revealed a very large stomach and the tumor was formed of the pylorus. There were no enlarged glands or adhesions anywhere in the abdomen. The mucosa was gray, covered with a thin layer of mucus and had no rugae. There were no ulcerations. The pylorus was markedly contracted and the muscularis at this portion was 7 mm thick. The duodenum was normal so that the hypertrophied pylorus resembled a cervix projecting into the vagina.

In considering the findings in our case and studying the reports of similar conditions as found in the literature, we believe that the con-

dition was first that of an idiopathic pylorospasm and hypertrophy, perhaps the expression of a motor neurosis and that this led to retention of the stomach contents. The fragility of the mucosa in achlorhydria made this layer particularly susceptible to slight mechanical injury which could have been caused by retained, undigested, and perhaps coarse food particles. It was an easy matter for the erosions to grow larger, once they were started and it is very likely that the presence of the erosions increased the tendency to pylorospasm and hypertrophy, thus forming a vicious circle.

The treatment which suggests itself for such a condition is first internal and then surgical. Small and frequent meals of milk or other liquid, lavage with weak silver solution as suggested by Einhorn and antispasmodics would form the basis of the treatment. Pyloroplasty and similar operations were not as successful as gastroenterostomy in the few cases which were operated on but the number was too small upon which to base a definite opinion as to the proper surgical procedure in such instances.

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ADHESIONS OF THE APPENDIX ASSOCIATED WITH INTESTINAL OBSTRUCTION

JACOB M. MORA

From the Department of Pathology and Bacteriology
University of Illinois College of Medicine

CHICAGO

Adhesions are the most frequent cause of strangulation of the bowel, and strangulation is the most frequent cause of acute intestinal obstruction. Richardson¹ recently collected a series of 118 cases from the Massachusetts General Hospital in which he found that 75 cases, or 63%, were definitely due to adhesions. In Fitz's series of 101 cases (quoted by Osler), 70% were due to adhesions. Since about 70% of all cases of strangulation occur in the right iliac fossa, one immediately thinks of the appendix and the role it may play in the production of this condition. In Fitz's series 16% of the 101 cases were due to adhesions of the appendix. Hilgenreimer (quoted by Wilms)² found that of 298 cases of strangulation ileus due to adhesions, appendiceal adhesions acted as the constricting bands in 34, or 8.7%, of the cases.

As early as 1853, Virchow³ first scientifically discussed adhesions in adults and also found that such abnormalities were occasionally found in the fetus. Since then, a vast literature has accumulated, and the last word has not yet been said.

The formation of these adhesions represents the reaction occurring in a localized peritonitis, and as far as the appendix is concerned, may be brought about by any of the following conditions: Repeated attacks of acute catarrhal appendicitis (which later assumes the proportions of a chronic appendicitis), the so-called acute diffuse appendicitis in which all coats of the organ are involved, purulent appendicitis, occasionally gangrenous appendicitis, and sometimes by a tuberculous appendicitis or a carcinomatous appendix. When the peritoneum becomes involved due to any of these inflammatory affairs, it responds to the irritant action of the bacteria or their toxins by a local hyperemia, edema of the superficial layers of cells, and by exudation. The character of this exudate varies according to the type and number of organisms present, and upon the presence or absence of foreign and irritant material such as bile or gastric juice. The exudate as a rule is serous, sero-fibrinous, or fibrinous, but in fulminant cases death may occur before any peritoneal reaction results.

This inflammatory exudate plays a protective role, due chiefly to the bacteriolytic properties of the normal peritoneal fluid, and to phagocytosis by the normally present cells. As a result of the outpouring of this sero-fibrinous or fibrinous exudate, a fine fibrinous network is deposited on the involved peritoneal surfaces. This network enmeshes the bacteria and other cells. Further exudation occurs, and more polymorphonuclear leucocytes are brought in and continue to destroy the bacteria. When the above reaction occurs somewhat gradually, a third protective measure comes into play, namely, the tendency to encapsulation or the formation of adhesions. The sticky, fibrinous deposit on the peritoneal surfaces results in a matting together of involved organs either by

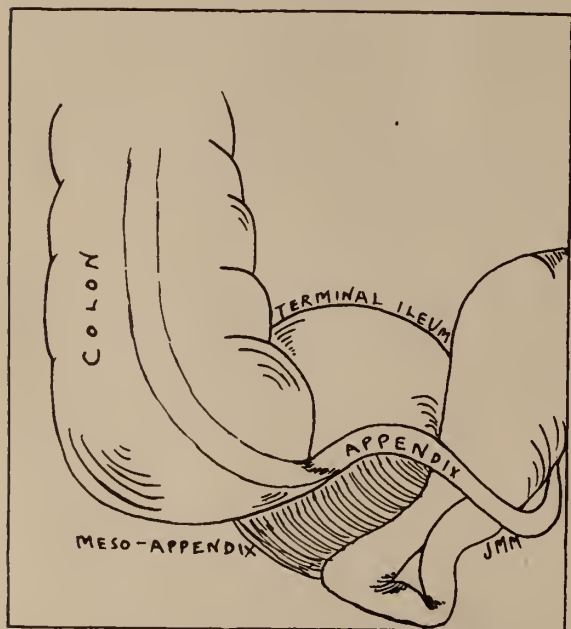


Fig. 1. Diagram illustrating constriction of bowel by appendix adherent to ileum.

direct adhesion or by uniting membranes or bands. In cases which tend toward healing, regressive processes take place, consisting chiefly of absorption or organization. Serous exudates are absorbed directly and purulent exudates are absorbed after autolytic digestion of their cellular and fibrinous elements. When the endothelial surface of the peritoneum has been destroyed, the fibrinous network deposited previously becomes invaded by connective cells, organization continues, the connective tissue cells mature and contract, and the sticky fibrinous deposit becomes thus transformed into more or less permanent

fibrous bands. It is by fixation and distortion of viscera by such bands that intestinal obstruction occurs.

Appendicitis, therefore, as a cause of inflammatory adhesions with subsequent possibilities of bowel obstruction, must always be kept in mind. O'Connor⁴ in a recent article, emphasizes this point very strongly and he makes it a point to inquire of all patients who present themselves with symptoms suggesting acute obstruction, as to whether or not they have previously had appendicitis. Mix⁵ reports an interesting case illustrating this. The patient, a girl of twenty-two, had symptoms of chronic appendicitis for many years. On opening the abdomen for appendectomy, numerous adhesions were noted binding down the appendix, which was very long, to the hepatic flexure of the colon, in the neighborhood of which were also many other adhesions. The surgeon who removed the appendix, did not break down these adhesions because he said that it would take him too long to remove the appendix. Subsequently, this patient began to vomit daily bile-stained fluid. On careful study, this was found to be due to the adhesions which had formed as a result of the chronic appendicitis and which were constricting the bowel in the region of the hepatic flexure. Operation again to remove the adhesions resulted in disappearance of the symptoms and complete recovery. Williams⁶ also reports a case of a young man who gave a history of chronic appendicitis and who developed symptoms of acute obstruction. Operation revealed a thickened, indurated appendix adherent to the under surface of the ileal mesentery. Williams, likewise, emphasizes the importance of keeping in mind appendiceal adhesions following unoperated cases of appendicitis. Bogart's case⁷ was that of a man, aged thirty-one, who was taken suddenly ill with symptoms suggesting a general peritonitis with intestinal paresis. At operation, general peritonitis was found which was due to a perforated appendix located well down in the pelvis. In addition to this, however, there was found a distended loop of small intestine which had become adherent and kinked in the pelvis. The relationship was obvious. Bogart concludes that in his experience, acute intestinal obstruction other than that produced by paresis of the intestine secondary to peritonitis is a rare complication of appendicitis. The case reported by Jones⁸ was

that of a man of twenty, who was suddenly taken ill and in three days presented all the classical symptoms of obstruction. On opening the abdomen, adhesions, apparently of long standing, were found around the cecum. The appendix was as thick as an average-sized finger and more than four inches long. It dipped into the pelvis and its extremity was there adherent, causing conclusion of the gut by traction.

With a frequency equal to those due to appendicitis, are the adhesions following operation on structures in the vicinity of the appendix. In these cases, the formation of adhesions is brought about in the same manner as that detailed above, but here one has the added factor of trauma to consider. Some important facts have been brought out in this connection. It is well known, for example, that different individuals respond differently in the matter of formation of adhesions following abdominal operation, or as Abbott⁹ puts it, "For some unknown reason the same conditions are not followed by adhesions in one individual that in another may cause extensive adhesions." The mere presence of the operator's fingers may occasionally be sufficient to produce adhesions, while on the other hand, a prolonged operation with much handling of the intestines may occasion no change¹⁰ (Harrigan). This latter observer ventures the opinion that there exists some distinctive peculiarity of the mesothelial cell which favors its proliferation, and that the lymphatic current of the peritoneum, of which so little is known, may be very important. Corbett¹¹, at the University of Minnesota, working on the experimental production of peritoneal adhesions, finds that sterile trauma to the peritoneum plays little role in the formation of adhesions. Infection is the primary factor, but he found that infection plus trauma produced the most massive adhesions. Hertzler¹² also calls attention to the greater tendency of adhesions to form subsequent to operative procedure on the lower ileum as contrasted with the jejunum. He thinks that this is probably due to the difference in bacterial flora of the upper and lower bowel. In a recent study Hertzler¹³ distinguishes between peritoneal agglutinations and peritoneal adhesions; the former, according to him, involving the upper strata of cells and the latter involving the lower layers of cells. The agglutinations can be broken up by vigorous peristalsis, but the adhesions require operation.

Thus it is seen how frequently the appendix may become involved with the production of adhesions between it and surrounding structures following operative procedure in its immediate vicinity. A case of such a nature was recently reported by Straus¹⁴. The patient, a woman, of forty-one, came into the hospital with the classical symptoms of an acute obstruction—severe pain over the abdomen, persistent vomiting, tenderness, tympanites, and obstipation. Physical examination revealed a distended abdomen, meteorism, visible peristalsis from left to right, and a prominent bulging in the right lower quadrant. The only significant point in her history was the fact that two laparotomies had previously been performed for the removal of a tumor from the right iliac region. A diagnosis of ileus was made. Operation disclosed an appendix, the tip of which was adherent to the right ovary, which proved to be large and cystic. The appendix was unusually long, measuring over 5 inches. A single loop of gut was constricted about 15 inches from the ileo-cecal valve.

Straus further quotes Meissner, who, in a recent article reports a case of strangulation ileus caused by the appendix acting as the constricting band. The patient gave a typical history of appendicitis, and at operation the tip of the appendix was found adherent to the anterior abdominal wall three finger-breadths below the umbilicus and three finger-breadths to the right of the median line. The tip only was adherent and the body of the appendix acted as the constricting band strangulating a loop of small bowel which lay wedged between the appendix and the anterior surface of the cecum.

A third group of cases are those in which the adhesions of the appendix are congenital in nature, due, no doubt, to some intra-uterine inflammation. While these cases are considered to be comparatively rare and of little significance, Bryant¹⁵ states that "the frequency of occurrence of adhesions in fetuses of both sexes is greatly underestimated."

Wilms, in his comprehensive German monograph, points out that of all the organs, the appendix is the one which, on account of its adhesions, gives rise to strangulation ileus most frequently, and appends an additional list of cases illustrative of this.

Sprengel, in his monograph on appendicitis, states that the appendix may become adherent

to the mesentery, to the lower ileum, to the cecum, in the right iliac fossa, in the region of the rim of the pelvis, to the rectum, to the bladder, to the ovary, or even to the descending colon.

It is well to note in passing, the great frequency of adhesions following appendectomy. In Richardson's series mentioned above, post-appendectomy adhesions stand at the head of the list of post-operative adhesions. Recent articles by Dardel¹⁶, McMullen¹⁷, Cheever¹⁸, and Harri-gan¹⁹, also attest to the great number of adhesions following appendectomy. Cheever accounts for this in the following manner: The acutely inflamed appendix lies in a mass of inflammatory exudate. When the appendix is removed there remains a bed of adhesive plastic exudate against which lies the terminal ileum. Conditions are ideal for the formation of prompt and firm adhesions, especially if the usual post-operative paresis of the intestine is marked and prolonged; these adhesions may therefore be the cause of subsequent obstruction.

Because adhesions of the appendix associated with intestinal obstruction occur more frequently than is ordinarily supposed, and because of the great importance attached to them, a report of the following case is warranted.

History—H. S., negress, married, aged 21, was admitted to the Cook County Hospital November 10, 1922, on the service of Drs. Barrett and Culbertson, complaining of severe pain in the lower abdomen with frequent vomiting, of two weeks' duration. The above symptoms appeared suddenly at 2 a. m., October 27, and were present at the time of admission. The vomiting was especially severe during the four days prior to entrance. Constipation had been present for three days. Her past history was essentially negative except for the facts that she had had similar previous attacks each year for the three preceding years, and a profuse vaginal discharge for three years. She had had one normal labor in 1918. Venereal infection was denied.

Examination—The perineum was firm. The external genitalia were negative, except for a marked discharge. Pelvic examination revealed an upright and fixed uterus; the fornices were both densely infiltrated and tender, particularly on the right, but the right appendages could not be palpated as such. The abdomen was exceedingly tender, especially inferiorly where also rigidity was more marked. Distension of the abdomen was easily discernible. There was marked inguinal adenopathy.

Examination of the mouth showed pyorrhea, with marked sordes, and a distinctly fetid odor was present. The pupils reacted to light and accommodation. The heart and lungs were negative. The blood

pressure was 130 systolic, 90 diastolic, with a pulse pressure of 40.

At this time, a diagnosis of diffuse peritonitis, beginning as a salpingitis and pelvic peritonitis, was made.

Course—Her condition improved somewhat under hot stupes and enemas, but in a few days became progressively worse, associated with vomiting of intestinal contents. The temperature became subnormal, the white blood count rose to 33,900 per cu. mm. The abdomen became greatly distended, with dullness in the flanks and lower portions, and tympany above. Acute intestinal obstruction following a plastic peritonitis was the diagnosis at this time.

Operation—An ileostomy was performed under local anesthesia by Dr. Culbertson, on November 24. A large quantity of fluid and semi-solid fecal material was allowed to pour out.

Subsequent Course—The patient was improved and felt better. She was discharged on January 6 with a fecal fistula, and sent home to improve her general condition before further operative procedures were undertaken. She returned January 29 emaciated and but little improved. The wound had healed entirely. There was marked tenderness over the entire abdomen. On the following day, she again began to complain of abdominal pain, vomiting again supervened, the pulse rose to 140 and obstipation set in. Her condition grew rapidly worse, the temperature varied from 96 to 98.4; the pulse from 142 to 160. Death occurred at 11 p. m., February 3.

The diagnosis previous to death was: "Chronic pelvic peritonitis producing acute intestinal obstruction, followed by general peritonitis with paralytic ileus."

Necropsy—(Performed by Dr. Singer.) The ileum is markedly adherent to the anterior abdominal wall in the midline and at the site of the defect in the abdominal wall there is an ileostomy opening. There are about two litres of a purulent material in the abdominal cavity, having a feculent odor. The loops of the bowel are bound together firmly by a plastic exudate and there is a moderate amount of fibrous tissue.

The uterus, tubes, and sigmoid are bound together in a dense mass of fibrous adhesions. The cervix is markedly reddened and firm. The uterus is small and the endometrium unchanged. The peritoneal surfaces of the tubes and ovaries are reddened. The right tube and ovary comprise an abscess. The left tube and ovary are thickened and reddened, but contain no pus. The sigmoid is markedly adherent to the surface of the uterus. The small bowel loops are bound together by plastic adhesions. The tip of the appendix is adherent to a loop of ileum by firm fibrous adhesions, and within its loop between the base and the tip are two loops of bowel which are compressed. The pertinent features in the anatomic diagnosis consisted of: acute generalized suppurative peritonitis; supra-pubic mid-line laparotomy wound with ileostomy opening; right tubo-ovarian abscess; fibrous pelvic peritonitis; fibrous adhesion of tip of appendix

with band formation causing partial intestinal obstruction; bi-lateral fibrous salpingitis.

The appendiceal adhesions in the case were evidently due to a combination of two of the factors mentioned above, namely, inflammation of an organ in the immediate vicinity of the appendix, in this case the right tube, and post-operative infection and trauma incident to the ileostomy.

SUMMARY

1. Adhesions of the appendix are a frequent cause of acute intestinal obstruction.

2. These adhesions may be brought about by a direct inflammatory affair such as occurs in the various forms of appendicitis, or inflammation of an adjacent viscus, or:

3. The adhesions may result following operation on structures in the vicinity of the appendix, where infection plus trauma are the basic factors.

4. Adhesions of congenital origin, while comparatively rare, are more common than is ordinarily supposed.

5. Individual peculiarities exist in regard to the reaction of the peritoneum to infection and trauma, little trauma in some people calling forth massive adhesions, while prolonged handling in other cases may call forth no reaction at all.

6. A previous history of appendicitis, if obtained, is important in connection with suspected cases of acute obstruction.

7. The appendix may become adherent to any of the surrounding structures, most frequently to the mesentery, the ileum, the cecum and the anterior abdominal wall.

1419 S. Spaulding Avenue.

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SUB-ACUTE BACTERIAL ENDOCARDITIS*

WALTER L. BIERRING, M. D.
DES MOINES, IOWA

This paper is based on a study of eleven cases of sub-acute bacterial endocarditis observed during the past two years, and a comparison with that of other writers on the same subject.

The first writer to present the subject of chronic endocarditis in comprehensive form was Osler in his Goulstonian lectures in 1885, but in a later contribution in 1908 he gave a classic clinical description of ten cases seen in the preceding twenty years, of chronic character, not specially marked by chills but with a protracted fever, often not high, of four to twelve months duration, and remarked that he had not noted cases of this particular type at the time of his Goulstonian lectures in 1885.

In 1909 Thos. J. Horder published an extensive resume of microbic infective endocarditis with an analysis of 150 cases observed during the preceding eight years, and in this collection there were eighteen examples of the description regarded as typical of the sub-acute bacterial form.

H. Schottmueller published five cases of so-called endocarditis lenta in 1910, which corresponds to the type under consideration. In recent years a number of French writers have added further contributions, notably Roger, Vaques, Fiessinger and Janet, usually under the title "endocarditis lenta".

In American literature the names of Billings, Rosenow, and Libman are most familiar in connection with the subject, and of these Libman has probably made as extensive contributions as are recorded anywhere.

Libman and Celler in 1910 published a study of 43 cases seen in eight years, with a duration of four to eighteen months. In March, 1917, he, Libman, referred to a study of 182 cases with 65 autopsies, and in 1920 he stated that he had seen

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close to 300 cases of this supposedly unusual malady.

At the meeting of the British Medical Association in 1920 the Medical Section devoted an entire session to the consideration of sub-acute bacterial endocarditis, and the discussions as published in the *British Medical Journal*, Aug. 28, 1920, constitute a comprehensive estimate of present knowledge of the subject.

In defining the term sub-acute bacterial endocarditis it should be stated that it does not concern that form of endocarditis which accompanies acute and sub-acute rheumatism. Whatever the causative micro-organism of acute rheumatism may prove to be, it is generally agreed that the vegetations of rheumatic endocarditis and the blood stream are bacteria free, which is quite different from the group of cases under discussion.

Differentiation must also be made from that form of endocarditis often termed acute ulcerative or acute malignant, which is but one part of an acute pyemia, where the heart affection is secondary to, rather than responsible for, the systemic septicemia. The clinical course is quite different, the duration of the disease varying from a few days (fulminating type) to a few weeks, and the infective micro-organism is much more virulent.

This form of endocarditis is also not to be confused with that type occurring as a terminal event in chronic disease, which is more often latent and only recognized at autopsy.

After excluding these three forms there remains a group of cases that have been described under the various terms of chronic infections, chronic ulcerative, chronic malignant, and chronic septic endocarditis, as well as endocarditis lenta, and for which now the term sub-acute bacterial endocarditis has been generally accepted.

The discussion of the subject will be considered under the following headings:

1. Etiologic significance of a pre-existing valve lesion.
2. Types of infection and infective foci.
3. Characteristic clinical picture.
4. Prognosis and treatment.

1. That a pre-existing valvular lesion is essential for the production of this form of endocarditis is evident from the history of all recorded cases. The chronically damaged valve constitutes

a predisposing site upon which the new infection is engrafted.

In one-half of the recorded cases a history of acute or sub-acute rheumatism is noted as the cause of the previous valve lesion. Syphilis and other infections are much less frequent. Arteriosclerotic valves have been observed as the basic lesion, and in a limited number of cases (as in one of ours) the primary valvular defect has been of congenital origin.

Of the eleven cases concerned in this report, the aortic valve was involved in four instances, the mitral valve in six, and in one case the pre-existing lesion was a patent ductus arteriosus of congenital origin.

2. In 90 to 95 per cent of the reported cases distinctive bacteria have been isolated from the blood stream, which in most instances have been classed as some type of anhemolytic streptococcus. This was the micro-organism associated with nine of the eleven cases in our series.

Libman reports an anhemolytic streptococcus mitis as occurring in 95 per cent of his cases, and the influenza bacillus in the remaining five per cent. Because of this constant occurrence Libman is inclined to substitute the term "sub-acute streptococcus and influenzal endocarditis" for the disease instead of "sub-acute bacterial."

In the earlier writings like that of Lenhartz in 1901, when blood cultures were first being made, some type of streptococcus was usually found to predominate.

That other micro-organisms as the staphylococcus pneumococcus and gonococcus may also be causative agents has been clearly demonstrated. Recently Thayer reported 22 cases of prolonged endocarditis due to the gonococcus. Whatever the type of causative micro-organism may be, it has the common characteristic of being of low virulence, with no tendency even in its embolic manifestations to pyogenic effects.

All ages are liable to the disease, but it is rare in childhood and in old age, one-half of the cases reported occurred in the second and third decade, with a somewhat greater frequency in males than in females.

Between the production of the original valve affection and the later reinfection there is often an interval of several or many years of good health. To what extent the rheumatic history, or the pre-existing valve lesion itself, produces a

predisposition to subsequent infection is not easily determined.

In the eleven cases of this series, the following infections were connected with the onset of the sub-acute endocarditis, acute respiratory resembling influenza—seven, acute cystitis and pyelitis accompanying hypertrophy of prostate—one, infective endometritis and salpingitis—one, acute cholecystitis—one, and acute enteritis in one case.

3. The clinical course of sub-acute bacterial endocarditis is so distinctive as to permit its easy recognition and justifies its classification as a definite type of endocarditis.

Of the eleven cases referred to in this paper, the shortest course was 14 weeks, and the longest eight months, the last named patient going to bed on Christmas day, 1921, and died Aug. 26, 1922.

The onset is usually insidious and it is often difficult to determine just when the disease begins, this being equally true of the hospital patient who often does not come under observation until late, as well as the private patient who is in close contact with his physician.

The onset symptoms noted are a feeling of lassitude, vague pains, loss of appetite, chilliness, vertigo, headache, cough, and less often symptoms pertaining to the heart affection.

The distinctive feature of all cases is the fever, which is a constant accompaniment. Because of the insidious onset it is not improbable that patients go about during the early stage attending to their regular duties and not realizing that they are sick.

It is during this early stage that the thought of tuberculosis, sub-acute rheumatism, mild sepsis, malaria, or typhoid infection is often considered.

In explanation of the clinical symptoms the following is suggested:

1. Those due to the infection and resulting toxemia, producing fever, anemia, exhaustion and enlarged spleen.

2. Those due to the endocarditic changes as the breaking off of particles from the affected valves and endocardium, and leading to petechia, tender cutaneous nodules, clubbing of fingers, embolism, purpura, later renal phenomena, while definite cardiac symptoms are singularly rare.

Although fever is a constant phenomena it is very variable being often irregularly intermittent, again intermittent: some cases have little or no

fever, again appearing in waves remaining at 103-104 for weeks, and towards the end of the disease it may be absent for several weeks. Sweating is frequently noted during the early period of the disease.

As clinical signs of renal disease appear a rise in temperature results. complications such as embolic phenomena cause a sharp rise; chills also occur with embolism, and again with splenic infarctions.

Certain forms of therapy influence the fever curve, as intravenous injections of salt water, drugs like cacodylate of sodium, blood transfusions, all of which may produce a sharp rise, and again cause a drop to normal for several days, the latter often arousing false hopes as to the efficacy of the therapeutic remedy.

Splenic enlargement is a common symptom and the palpable spleen is an early distinctive clinical sign of this septicemic condition.

As embolic infarctions occur in the spleen, chills and sudden rises of temperature develop and this occurrence also explains the acute pains frequently noted in the left side of the chest and abdomen. With the development of infarcts the spleen usually undergoes some increase in size and its palpation becomes more painful.

Blood changes are a constant feature but vary greatly in nature; although anemia is a distinct characteristic of this disease, and the reduction in hemoglobin and red cells is often very marked, yet the true blood picture of pernicious anemia rarely develops. The leucocytes may be normal in numbers, again increased, or below normal. In the subnormal counts the lymphocytes are proportionately increased, while in the cases with leucocytosis the polymorphonuclears usually predominate.

The anemia is probably due to the destruction of the red cells by the circulating streptococci even though they are presumable anhemolytic in nature, and it is also likely that the systemic infection and toxemia affect changes in the bone marrow and thus tend to lower the functional capacity of the blood making structures.

The cutaneous phenomena are particularly characteristic and easily of greatest diagnostic import. They may be presented as changes in color, the appearance of petechiae, erythematous eruptions, purpura and painful cutaneous nodules.

The pallor of the face is a striking feature, to

which is added a tired look, and as later a pigmentation is manifest it gives to the face a brownish tinge usually referred to as "café au lait" color.

Purpura so frequently seen in severer types of septicemia is comparatively rare in this disease. Erythematous rashes are likewise rather infrequent. Petechiae on the other hand are a more important symptom and are present in 80 per cent of the recorded cases. They are usually discretely distributed and only during the terminal stage of the illness do they become more extensive, resembling the petechial eruption peculiar to other severe systemic infections and intoxications. These petechiae are usually of short duration and as they fade leave a yellowish brown stain.

By far the most interesting of the skin phenomena are the tender or painful nodes first described by Osler, and often referred to as "Osler's nodes" which are seen in 50 per cent of the cases. According to Osler's first description these nodes appear at intervals, more frequently on the tips of a finger, also on the pads of fingers and toes, consisting of slightly swollen areas varying in size from that of petechiae to one and one-half cm in diameter, of vivid pink hue, with slightly opaque centers. They are distinctly painful particularly to the touch.

They are not hemorrhagic and the area is not pigmented after they disappear. The best explanation offered is that they are caused by the lodgement of minute emboli near the skin.

It is a common remark of the patient at the morning visit—"Doctor, there is a new tender red spot on the finger or toe (as the case might be) this morning."

These principal cutaneous phenomena are to be distinguished from the lesions on the palms of the hands, inner sides of wrists and soles of the feet found in more acute forms of endocarditis.

Another interesting symptom is the clubbing of the fingers which is probably frequently misinterpreted. The sign is commonly believed to be a part of chronic valvular disease or congestion. While this is often true of congenital heart disease, in the adult affected with a chronic valvular lesion, the development of clubbed fingers is more likely to indicate an infection.

Aside from the embolic phenomena associated with certain skin lesions, vascular embolism con-

stitutes one of the main clinical features of the disease. It occurs either as pure embolism or embolic aneurisms.

The splenic infarctions so frequent in this disease as well as the terminal glomerular nephritis are further expressions of embolism.

Pain as a symptom occurs in various forms. Of these tenderness over the lower end of the sternum, first noted by Libman in 1910, is distinctive of this disease. It is not necessarily a part of the attending anemia, because it is noted before anemia is manifest.

Pains may be felt in other bones as the sacrum and ischium. These are often indefinite and only occasionally localized in a particular bone, joint or muscle area.

Headache is a frequent symptom. Add to these the painful cutaneous nodes and we have a series of painful symptoms that readily direct the diagnosis in various channels.

Except for the fundamental significance, the cardiac symptoms are among the least prominent of all. The presence of an existing valve lesion is very helpful in determining the diagnosis of the disease under discussion, but it is unusual for any new murmurs to develop in the course of the disease. Often they become louder, again they undergo variations during the illness, being louder at one time than another; tachycardia may occur with the increase in fever and general toxemia, but other pulse changes as arrhythmia are rare. Electro-cardiogram changes have not been noted. Pericarditis is rare. The usual signs of myocardial insufficiency are not manifest as a rule until the latter stages of the illness.

Renal symptoms become manifest through changes observed in the urine. Soon after the fever is well established an albumenuria is frequently noted, which is often transient; later in the disease red blood cells appear in the sediment, and with their appearance the albumenuria becomes more marked and hyaline and granular casts are present.

The studies of Gaskell and Baehr suggest that acute glomerular nephritis is characteristic of sub-acute bacterial endocarditis, and as such is usually a part of the later period of the disease and of unfavorable prognostic significance.

The patient usually succumbs as a result of the progressive anemia and exhaustion, incident to the continued septicemia, plus the development of complications as embolism, particularly inter-

cerebral with cardiac failure and disturbed renal function, so that pulmonary and visceral congestion with uremia and coma frequently close the scene.

In summarizing the clinical picture, it is clearly evident that in this group of cases, the symptom complex is of such constancy as to justify the classification as a separate disease.

The insidious onset, long continued fever, during which time, except in the terminal stage, the patient does not seem critically ill, a pre-existing valve lesion, enlarged spleen, anemia, clubbed fingers, characteristic cutaneous phenomena as the painful nodes, and finally the further symptoms of embolism and acute glomerular nephritis, with the demonstration of anhemolytic streptococci or similar micro-organisms in the blood stream constitute a picture that should be readily recognized by simple bedside observation.

The pathological anatomic changes, noted at autopsy are a further criterion that we are dealing with a disease process different from other forms of endocarditis. Aside from the changes incident to the pre-existing valve lesion there is a tendency for the process to extend downward and involve the wall of the ventricle in the case of aortic lesions and extension on the wall of the auricle, with involvement of the chorda tendinae in connection with mitral lesions.

The mural endocarditis is often more extensive than that affecting the valve surfaces, which probably accounts for the fact that auscultatory phenomena change so little during the course of the disease.

This is a distinctly fatal disease, and but a comparatively small number of recoveries have been reported. Libman reports four recoveries, and T. J. Horder about the same number. In our series of eleven, there is one patient who has been fever and bacteria free for seven months, so that a recovery may be considered.

Cases have been reported that succumbed to exhaustion and embolic complications after the fever had subsided, and the blood was bacteria free.

Libman has reported definite healing changes observed postmortem in affected valves, and the mural endocardium, so that evidence prevails that healing of the diseased area does exist.

In one of our cases the autopsy revealed a distinctly healed area on the mural endocardium, and could be related to a seven weeks course of

fever experience three years before the last illness.

Since this is distinctly an infective process and in many instances due to a particular micro-organism, it is but natural that some form of immunal therapy should be considered. Unfortunately all forms of vaccine treatment have not been attended by any appreciable results. It has been proposed that the transfusion donor be primarily immunized with the causative streptococcus before the blood transfusion is made, but of this method no extensive results have as yet been published.

Capps has recently reported four recoveries in a series of eight cases to the extent that the four patients were bacteria and fever free for periods varying from six months to two and a half years, as the result of the long continued use of arsenic in the form of cacodylate of sodium. In the one case the apparent recovery in our series, we are inclined to attribute the result to this remedy which was used intravenously in rather large doses.

Two reasons are given for the use of arsenic in this form of septicemia; first, it is known that arsenic is retained for a long period in the sera and other body fluids, and second, laboratory demonstrations indicate that the growth of low virulent streptococci are rapidly inhibited by weak arsenical solutions. It is therefore a form of therapy that deserves a good trial in every instance.

Considering the great mortality of the disease, the question of preventive measures for which Horder made a strong plea in his early paper of 1909, should receive prominent consideration. If there was a way to prevent acute rheumatism, most of these cases would not occur. Libman states that three-tenths of the deaths in cases of valvular disease, as shown by the records of Mt. Sinai Hospital, New York City, were due to the superimposed streptococcus and influenzal endocarditis. Noting further the tendency to attack principally young adults and mainly the individual with heart disease, who as yet has shown no signs of cardiac failure, we recognize the great role of prophylactic measures in this condition. It clearly indicates that every young adult with valvular disease should be rid of all ascertainable focal infections as contained in teeth, tonsils, sinuses, gall bladder, appendix, uterus and adnexa, and urinary tract. Furthermore the need

of keeping vitality at its best, developing immunity in every possible way and the prevention of any acute infections should always be borne in mind.

Careful attention to these facts in cardiac clinics, dispensaries, and in daily practice, will do much to control this disease.

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NITROUS OXIDE-OXYGEN-ETHER ANESTHESIA IN TONSIL OPERATIONS*

FRED M. F. MEIXNER, M. D.

PEORIA, ILLINOIS

The technique to be described for the administration of nitrous oxide-oxygen in combination with ether is not entirely new, but was developed upon the original work of H. E. Boyle¹ and has been used with success, not only for nose and throat operations, but for general surgery as well, such as goiter work, carcinoma mammae, empyema, tuberculous glands of the neck, amputations, prostatectomy, pelvic abscess drainage and like cases where deep anesthesia is not necessary and where a comparatively large amount of ether is not desired or is contraindicated.

Technique: A preliminary injection of morphin and atropine or scopolomine is given one half hour before operation, the dosage depending upon the age of the patient, character of the operation (whether simple snare or enucleation), and condition of the patient. The usual dose is 1-6 gr. morphin and 1-120 gr. atropine, and in children under 10 it is advisable not to use the preliminary hypodermic at all. The anesthetist

should be calm and no unnecessary noise should be permitted in the room. The patient is told to go to sleep without effort, and then a wet pad of cotton is placed over the eyes. Nitrous oxide-oxygen is introduced into the bag, using not over 12 per cent. oxygen, and the nasal inhaler applied. After a few breaths the oxygen is discontinued and the exhaling valve closed, so that the patient rebreathes from the bag. The gas is given under slight pressure as suggested by McKesson². As soon as the patient is unconscious, ether is admitted by allowing the gas to pass through warmed ether for a few seconds. A relaxation is felt at the jaw almost immediately (and the relaxation is complete even in robust men), and the ether is then discontinued, allowing only that which is in the bag. The mouth is then opened by a gag, the patient turned on the side to permit blood to flow from the mouth and the head slightly lowered. This is important, as nitrous oxide causes more swelling of the respiratory tract and increasing the volume of respirations per interval of time³ so that there is greater danger of blood entering the larynx than with ether. The anesthetic is continued until the tonsils have been removed, then the inhaler is removed and the adenoids extirpated, the patient's head being immediately turned with the body on the side. At this point the patient is usually awake, and can expectorate any blood that collects in the mouth. The patient should not be cyanosed during the anesthesia, nor should the respirations be stertorous or a pallor manifest itself. These are signs of too much anesthetic or too little oxygen and indicate a bad anesthetic.

The Advantages: 1. The patient wakes as soon as the operation is completed, thus allowing any blood to be expectorated, although position is to be relied upon more than the patient's coughing reflex. The patient is returned to the nurse in the room in better condition and the patient's well being after the operation is wonderfully augmented.

2. Very little ether or nitrous oxide is used, hence very little damage is done to kidneys, heart or other structures. As little as 40 gal. N₂O has sufficed for an hour of anesthetic time and not over 1/2 oz. of ether is used in the same period.

3. The ether acts synergistically with the oxygen to overcome any depressing action of the

*Read at the October, 1921, meeting of the Midwestern Association of Anesthetists at Kansas City.

nitrous oxide, thus making this method particularly safe for weak or septic cases, endocarditis and nephritis subjects, various lung conditions, such as emphysema, edema, tuberculosis, abscess and goiter cases.

4. With the addition of the ether to the mixture the operation can be prolonged as long as necessary, thus allowing dissection and enucleation operations to be performed that would not be possible under straight nitrous oxide-oxygen anesthesia.

5. Complete relaxation is obtained with almost instantaneous return of the coughing reflexes as soon as the anesthetic is stopped, so that danger from asphyxia due to inhaled blood is minimized.

6. The dosage can be regulated to a fine point, not only as to the N_2O and O , but the amount of ether as well when the anesthetic is to be prolonged as in general surgery.

7. There is no great rise in blood pressure, hence the method is useful in heart cases and arteriosclerotics.

8. There is practically no post-operative vomiting, and that found is due to swallowed blood. The patient can be instructed not to swallow and so obviate this, which cannot be done with deep ether anesthesia.

9. There is no weakening of the powers of the patient's resistance as with straight ether, hence less danger of pneumonia, lung abscess and other infections.

10. The amount of bleeding seems to be less, especially post-operative, due probably to the increased coagulation time of the blood induced by the CO_2 rebreathing and the nitrous oxide itself.

11. It combines the good points of N_2O anesthesia: i. e., quick induction, quick recovery and lessened after effects, with the ones of ether: i. e., relaxation, stimulation of respiration and circulation, and freedom from dangerous effect, the patient being further removed from the lethal anesthetic point than if ether were not used.

Disadvantages and Dangers: 1. The anesthesia is not as profound and if hemorrhage is encountered the fact that the patient is awake makes it more difficult to manage the case.

2. Some patients do not take the anesthetic smoothly, so that there may be a brief struggle when the ether is introduced, but this can be

obviated by taking slightly more time in induction.

3. Dark skinned individuals, hard drinkers, and nervous women do not make good nitrous oxide-oxygen patients and the same may be said in the use of this technique.

4. This method should not be used except by an anesthetist thoroughly familiar with all the details of nitrous oxide administration and should never be given except in a fully equipped operating room, with a modern apparatus, and the patient must be examined prior to operation so that his true status is known.

5. In case of arterial bleeding in the tonsil fossae, it is sometimes difficult to keep the patient asleep long enough to ligate, but since this is very seldom necessary it can be overlooked.

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PENETRATING INJURIES TO THE EYE IN INDUSTRIAL OPERATIONS

FRANK ALLPORT, M. D.

CHICAGO

The eye may be penetrated by steel, copper, wood, glass, etc., and the object drop out, be winked out, or be drawn out by a hand, leaving behind it injuries that are more or less serious, and too numerous in character to be separately enumerated. The penetrating object may enter through the closed lid, cutting or not cutting the tarsus, or it may enter the eyeball direct, and either remain in the globe or come out of itself, or be removed by other agencies. Of course, those objects that penetrate the eyeball and come out without operative interference are almost invariably long, spindling foreign bodies, too long in fact to enter the ball and be concealed within its walls. The treatment consists in the removal of the invader (if it has not already been done), antiseptic cleansing, and the care of conditions as we find them, remembering that hardly any two of such accidents will be exactly alike. We may find perforation of the sclera or cornea, prolapse of the iris, cataract, intra-ocular hemorrhage, etc., all of which conditions must be cared for in the manner understood by experienced ophthalmic surgeons. All of such condi-

*Read before the Chicago Society of Industrial Surgeons, January 8, 1923.

tions may also exist if the foreign body is small in size, and has not only penetrated the eyeball but has also remained inside its walls.

I may as well say at the outset that I believe all cases of invasion of the eyeball by a foreign body should be submitted to an experienced x-ray practitioner. The presence or absence of a foreign body should be *positively* known, as well as its size, shape and location. Only good and clear pictures should be accepted, as very much hangs on their verdict, and I have known poor pictures to be shamed by good pictures, which disclosed the presence of a foreign body—undiscovered by the former. I require a front view and a side view, and, after I have seen and studied these, I do not as a rule feel the necessity of further localization. I say nothing *against* localization, and in some few cases it is most desirable, and even a necessity. I refer particularly to those cases where it is questionable whether the particle has gone clear through the eyeball, and is outside of the sclera, and perhaps in the cellular tissue of the socket. The knowledge of such a position is evidently of extreme value, for, as a rule, such cases are best let alone, so far as magnet or other withdrawal is concerned, unless the piece is of such large size as to render it dangerous to leave alone; in which case the severance of one of the lateral recti muscles, the pulling forward of the eyeball, the removal of the foreign body by forceps, etc., the replacing of the parts, etc., or the performance of the Kronlein operation must be taken into consideration. In some cases, where there is a doubt as to whether the particle is in the lens or not, exact localization is of value, but, as a rule, if I can have good clear side and front x-ray pictures, I feel satisfied to proceed with my operation. I believe that practically all that is really essential to know is, in which quadrant of the globe is the foreign body located? With this knowledge in hand, the exact line for line location of the particle is unnecessary. The interior of the globe is not a vast chamber at the worst, and a strong magnet introduced at either desired quadrant should be able to withdraw a piece of steel without difficulty, unless it is tightly buried in the sclera, under which circumstances we might have difficulty in acquiring success, even with exact localization.

Of course there are other foreign bodies that invade the eye besides iron and steel, and these

are particularly unfortunate cases. As magnetic attraction has no influence over wood, copper, glass, etc., these cases are almost hopeless. Exact localization is important, as the foreign body will have to be removed with forceps. The pupil should be dilated, as the operator must work with ophthalmoscopic observation, provided the invader is in the vitreous chamber. I have from time to time removed such particles, located in the anterior chamber or lens, through the cornea with success, but have invariably failed in saving the eye where I have entered the vitreous chamber through the sclera. I have, I think, twice removed the foreign body, but in every instance the eye has been lost, although I note some success in other operators' reports. I believe, however, that the attempt should be made, and I presume that some successes will be attained. I believe that a very small pair of Noyes Alligator Nasal Forceps is the best instrument for withdrawing the foreign body. They only open at the end and, therefore, no traction is made on the scleral wound. Of course, of all substances, glass is the most difficult to see, either with the x-ray or otherwise. It would also be the most difficult to withdraw, but, fortunately, its presence inside of the eye must be extremely rare, for, in a rather large experience in injury cases, I have never seen even one instance of such an accident.

The subject of foreign bodies inside the eyeball practically resolves itself into a consideration of steel or iron particles. Fortunately, such particles are removable with the magnet, with the single exception of manganese iron fragments, and these are rare.

Much has been written on this subject, and diverse views are entertained by competent and honest surgeons. I feel constrained to give *my own* views, leaving it with the operators to choose between *my* methods and the methods of others. I am not willing to adopt the dictum of Haab and others, that practically all foreign bodies should be removed through the cornea. In the first place, there are but few genuine, powerful Haab magnets in this country, and it sometimes requires enormous magnetic attraction to pull a piece of steel from its firm bed in the posterior sclera to the anterior chamber. Besides this, I cannot believe it a good plan to pull a good-sized, jagged piece of steel through the lens, iris, ciliary processes, etc., in order to deliver it through the

cornea. Of course, Haab lays out a most attractive itinerary, or route, for the removal of the steel, by which it may be delivered into the hands of its captor without much damage to the eye. The steel (according to Haab) is to be coaxed along the floor of the vitreous chamber, and to be *very softly* carried over the sensitive ciliary processes. It should then pass through the circular ligament of the lens without doing any particular damage, and then be lifted over the wall of the iris, over the pupillary opening, and then dropped on to the floor of the anterior chamber, from whence it can be extracted by a corneal incision and the magnet. This sounds almost like a fairy tale. It can be practically done by an expert, if the object is very small and comparatively smooth. In my opinion, it *cannot* be done, *even* by an expert, if the object is large and sharp. What usually happens is, that the powerful magnet is approached to the eye, when, "*Bing*," the object presents itself against, and sometimes through the cornea, carrying with it various portions of the internal anatomy of the eye. I believe that in recent injuries, where the cornea is still open, and where the lens is already cataractous, the foreign body may quite properly be withdrawn through the original opening, which may have to be somewhat enlarged, but, where the corneal wound has healed, and especially where no cataract is present, the posterior, or scleral, route should be utilized for operation. I have laid down the rule that the corneal, or anterior route, should only be used where the foreign body is *in* or *anterior* to the lens. All other particles should be withdrawn through the posterior, or scleral route.

Some surgeons believe that if the foreign body is in the lens, it should be left alone, as the lens has no sensory nerves, and the case is practically safe. In this view I do not agree. Such cases sooner or later come to grief, and I believe it is wiser to remove all intra-ocular foreign bodies, wherever located, as soon as possible, provided it can be done without almost irretrievable disaster to the eye itself. Fortunately, many pieces of steel that enter the eye come fresh from the fire and are aseptic, or they are rendered aseptic by heat derived from the friction of a hammer blow or the rapid propulsion through the air. Nevertheless, they should be removed as speedily as possible.

If the foreign body is located in, or anterior

to the lens, it can usually be removed by the magnet through a corneal opening of appropriate size. I believe, if it is in the lens, and does not come out readily, it is better to wait a few days, until irritation has subsided, and then make a conventional cataract operation, removing both lens and foreign body. Care should be taken that the foreign body is *actually* removed, to which end, the magnet, anterior chamber flushing, etc., may be necessary. I believe the results are better in such cases if the lens removal is preceded by an iridectomy. I believe that a serious mistake is frequently made in operating on traumatic cataracts, in assuming that a small keratome opening is sufficient to afford free exit for the lens matter. Such lenses are seldom as liquid as we are led to expect. Many of them are quite substantial and cannot escape except through a fairly large opening. A cataract incision, whether for a senile or a traumatic cataract, should be ample, to avoid vitreous escape, or enlargement of the wound with scissors, both of which always lessens the percentage chance of a good recovery. Besides this, in almost all such cases, the anterior chamber irrigator will have to be used to flush away all possible lens material, in order to lessen the chances of an iritis. For this purpose, a fairly large opening is necessary, not of course as large as for a senile cataract, but fairly large. A Graefe cataract knife may be used, or a large keratome, although the latter requires more force than a Graefe knife. Fisher's retractors are better than a speculum, for they lessen the liability to lose vitreous. Very little pressure on the eyeball should be used by spoons, etc., for in these traumatic cases the hyaline membrane and posterior capsule are usually broken and the vitreous escapes easily. If considerable vitreous is lost, its place should be supplied by the injection into the posterior chamber of enough warm normal salt solution to fill out the globe. This solution should always be on hand in such cases, ready to be used in case of necessity.

If the foreign body is in, or anterior to the lens, it is frequently easy to hold the magnet to the eye, before a corneal incision is made, and attract the object to the floor of the anterior chamber, from whence it can be easily extracted by an incision made at the *very bottom of the chamber*, and the magnet. If the incision is made above the floor of the chamber, the inter-

vening corneal wall may prove quite an embarrassing obstruction for the magnet extraction. The foreign body may pull iritic tissue with it in process of its exit. If the iris is easily replaced, and stays replaced, it may be well to leave it, but, if it proves obstinate, an iridectomy had better be made. If the lens is broken down and soft, the opening should be large enough to facilitate lens removal by pressure, spoons, anterior chamber flushings, etc., in order to forestall, if possible, lenticular swelling, iritis, etc. The removal of intra-ocular foreign bodies is very interesting work. Each case must be judged by itself, and no hard and fast rules can be laid down for the management of all cases. Experienced skill, judgment and mental flexibility are the most important elements leading to success.

Let us now consider those cases where the foreign body is in the posterior chamber. The point of entrance may be through the cornea, sclera, or sclero-corneal junction. If it enters through the cornea, all sorts of corneal, iritic or lenticular damages may be present and each case must be judged by itself and treated accordingly. I have elsewhere recorded, and wish to record again, that I have seen one or two where minute steel fragments have passed clear through the cornea and *lens* without leaving any evidences of cataract behind. This seems well nigh impossible, but it is true nevertheless. One case, I remember distinctly, where a minute particle passed directly through the lens, leaving a minute track behind. This tract subsequently cleared up, and a perfectly clear lens resulted. If the point of entrance is through the sclero-corneal junction, the damage may be similar, but it must not be forgotten that this particular territory is the most sensitive in the eye, and that injuries here are especially apt to produce sympathetic ophthalmia, and protracted and unsatisfactory recoveries. I wish to say, however, that while I do not deny the existence of sympathetic ophthalmia, and have the greatest dread and respect for it, nevertheless I can truthfully say that, after a long and active experience, I am sure I have never seen six of these cases. So I cannot be blamed for feeling that the prevalence of this dreadful disease has been very much over-estimated. If the foreign body enters through the sclera, it frequently happens that very little damage is done, and certainly, as a rule, there are very few external evidences of trouble. A scleral

wound, and a soft eyeball, are perhaps all the visible pathology present. Of course, some cases of steel invasion, no matter where the point of entrance occurs, produce such profound trauma that it is immediately evident that the case is hopeless from the start. Under these conditions, enucleation should be advised at once; thus saving time, money, and shattered hopes, protracted illness, and semi-invalidism, to say nothing of the possibility of sympathetic ophthalmia. Frequently patients will not consent to such prompt surgery, but the advice should be recorded in writing, which may become useful in the future, for it must be remembered that all such cases are potential plaintiffs in legal proceedings.

After a foreign body has entered the eyeball through the sclera, or for that matter through any other route, a thorough examination should be made. The pupil should be enlarged, and the anterior portion of the eye examined under illuminated magnification. If possible, the interior of the eye should be carefully observed with the ophthalmoscope, the x-ray, and possibly localization should be employed. I do not, as a rule, believe in what might be called *magnet diagnosis*. That is the approach to the eye of the strong magnet to see if the steel shows itself, or if the patient experiences any pain. Complications are likely to occur, under such a means of investigation, that will greatly embarrass the surgeon, and lessen the patient's chance of obtaining a good eye. The magnet should not be used until all the evidence is in and the plan of campaign clearly understood. We should be guided by our x-ray pictures when the eye is opened. I am, of course, now speaking of operations through the scleral, or posterior route. The incision should be either between the superior and external recti muscles, or between the external and inferior recti muscles, or between the inferior and internal recti muscles, or between the internal and superior recti muscles. In other words, in one of the four quadrants of the eye, indicated by the x-ray as the quadrant nearest the location of the foreign body. I pick up the conjunctiva, after local cocaineization, near the sclero-corneal junction with forceps, and cut the apex of the conjunctival fold with scissors. I make a slender triangular flap, way back to the cul-de-sac. I close and spread the scissors beneath the flap, so as to thoroughly dissect the conjunctiva from the sclera. I lay back the flap,

and I then plunge a Graefe cataract knife through the sclera, far enough back to avoid cutting the ciliary processes. This incision is enlarged backward, at an angle of about 45 degrees, for nearly one-half an inch, in order to provide plenty of room for surgical procedures and for the withdrawal of the foreign body. If the latter is very large, it may be necessary to enlarge the opening with scissors. If the entrance of the foreign body has made a scleral opening, that is still open, it is often wise to utilize this opening, and enlarge it for the operative procedures. After the opening is ready, the magnet—with its strongest point—should be placed in the open wound. I have devised two little non-magnetic hooks that I place—one in each side of the wound—to open it, that often seems to facilitate the withdrawal of the foreign body. They are held by an assistant. It is needless to say that all instruments used in this operation should be non-magnetic. The point of the magnet should be aimed, as near as possible, at the long axis of the foreign body, as shown in the x-ray pictures, for objects are much more readily and harmlessly removed in this way than if the magnet is aimed broadside at the object. We must from time to time be *sure* the magnet is working, by holding perhaps a pair of scissors toward it to see if the current is on full strength. I have seen failures occur from neglecting this precaution. Sometimes the foreign body fails to present itself at once, it may be stuck in the sclera, or covered with exudate. The current should then be switched on and off, on and off, etc., in order to jerk it loose. It may be well to give the patient a rest occasionally, and remove the speculum from the eye, and then go at it again. If, after giving the case a prolonged trial, and no foreign body is removed, we shall have to consider the advisability of introducing a magnetic point inside of the eyeball, as close to the location of the foreign body as we can judge. This is a procedure that some surgeons do readily, and more or less fearlessly. I cannot agree with this point of view. I regard the introduction of a magnetic point inside the eyeball as an exceedingly hazardous procedure, only to be done as a last resort, and after all other methods have failed. If, however, it becomes necessary, it should be done with exceeding gentleness and care, and for not more than (let us say), three times. The current should, of course, be on in full force when the point is

withdrawn, as otherwise the foreign body might be stripped off at the moment of withdrawal. I have removed some foreign bodies in this way, when other means had failed, but I always felt I was indulging in a dangerous practice. Very occasionally more than one piece of steel will come away. Whether a plurality of pieces entered at the initial entrance, or whether a single piece has broken up into several pieces after entrance, I cannot say, but I believe in the latter view. If we do not succeed easily in withdrawing the foreign body, we should patiently persevere until success or failure is assured. I have sometimes found, in obstinate cases, that the foreign body can be moved by placing the strongest point of the magnet as far into the conjunctival cul-de-sac as possible, at the point where the x-ray has located the foreign body, and then gently and slowly move the magnet down to the scleral opening, "milking" the eye—as it were. This can be done several times, in different locations, and should always be done before a magnet point is introduced inside the eye. I believe that more strenuous methods of procedure, other than those I have indicated in this paper, are unwarranted, and would result in the loss of the eye, almost without exception. I am not unaware of the dangers of removing foreign bodies through the scleral, or posterior route. Detachment of the retina, intra-ocular infections, loss of vitreous, etc., may of course occur, but these risks seem to me trivial as compared with the dangers of dragging a foreign body through and over the delicate and sensitive anatomical elements found in the anterior portion of the eyeball.

After the foreign body is removed, or we are resigned to failure, the wound is closed. Do not stitch the sclera; it is unnecessary, and, as the sclera is thick and tough, considerable pressure is used in getting a needle through both lips of the incision, and vitreous may be lost. Besides this, part of a suture would of course be left in the vitreous chamber, which would invite intra-ocular infection if left (as with a catgut suture), or if removed (as with a silk suture), stitching the conjunctiva is sufficient. The apex of the conjunctival flap is so near the sclero-corneal junction that there is not enough conjunctiva to retain a suture. I, therefore, draw the flap forward, and suture the conjunctival triangular and tongue-shaped flap to the conjunctiva left on the eyeball, one suture above and one below. This

will be quite sufficient. I use very fine silk sutures. The recovery after the operation is usually uneventful. The sutures may be removed on the third or fourth day. Of course, some of these cases speedily go to the bad, through iritis, panophthalmitis, etc., and enucleation becomes necessary. Others apparently do well for weeks or months, and then atrophy of the globe, intra-ocular pathologies, etc., occur, and the eye becomes useless, and may have to be removed. Sometimes the eye is permanently saved, with more or less vision. No one can tell the ultimate result even in those cases that appear to be exceedingly successful. I have learned to maintain a guarded prognosis until about a year has elapsed. If *then* the result is good, I feel optimistic, but not until then. The trauma and insult to the eye are great where a piece of steel has passed into perhaps the vitreous chamber. It is still more so when the steel is removed by a magnet, and still more so when perhaps further operations, like a cataract or an iridectomy, have to be performed. We must not be surprised, therefore, when so many eyes ultimately succumb after undergoing all these hardships.

The question as to what magnet is used is one that most surgeons view from the standpoint of their own experience. The genuine double-ended Haab magnets are very expensive and scarce in this country. They are the most powerful magnets made, and perhaps the best for general use, although, when a magnet point is to be introduced inside the eye, I think some strong hand magnet—like Sweet's—is the best, as it can be more easily and delicately handled. Several substitutes for the Haab magnet have been introduced in America, like the one manufactured by the Victor Company, for instance. Heavy magnets, like the one devised by Haab, etc., are best regarded as stationary instruments. In other words, the patient should sit and approach the instrument, whereas, in using hand magnets, the patient lies on the table and is approached *by* the instrument. I think on the whole that better work can be done by using a very strong hand magnet, such as Sweet's or Lancaster's, that combine power with flexibility, than by using a fixed magnet such as Haab's. I have used Sweet's instrument for years, and have been well satisfied with it. The chief objection to it is that it quickly becomes almost, if not quite, too hot to handle. I have covered it

with an asbestos overcoat, but the heavy magnet slips in the covering and interferes with the accuracy of its use. I have had no experience with the Ring Magnet, and therefore can say nothing about it. It undoubtedly possesses great power, that can be graduated to conform with the necessities of the case, and the handles can be easily manipulated.

7 West Madison Street.

REMINISCENCES OF FORTY YEARS OF MEDICAL PRACTICE IN JO DAVIESS COUNTY, ILLINOIS*

I. C. SMITH, M. D.

STOCKTON, ILLINOIS

Mr. President and Brother Physicians:

To be the honored guest of a society of medical men is surely a recognition that any man might well be proud of.

I will relate a few personal experiences during the forty years of practice in Jo Daviess County.

I understand that I am the oldest practicing physician in this county, both in age and in the years of practice.

On March 19, 1884, I located in the village of Morseville (Plum River P. O.), a little inland mining town of the old brand, located in the town of Stockton, with a population of about 150 or 200, twelve miles to our nearest railroad town, which was either Warren or Lena, on the Illinois Central Railroad.

A stage route from Freeport to Elizabeth was operated by John Morrow, making three trips a week, hauling mail, freight and many passengers. This route served Mill Grove, Yellow Creek (now Pearl City), and Kent, in Stephenson County, Plum River, Yankee Hollow, Stockton Center, Woodbine (or Jewels Prairie, as it was called at that time), and Elizabeth. Our roads at that time were mostly trails, except the main travelled roads, with scarcely any bridges over the small streams and not many over the larger ones. I did nearly all of my travelling on horseback, or a high-wheeled sulky. Had a pair of saddle bags in which I carried my medicines, obstetrical supplies, and everything we had to carry. Owing to the many streams we had to ford we could not reach our patients by any

*Read at a picnic given in his honor by the Jo Daviess County Medical Society and Dubuque, Iowa, medical friends at Camp Nineteen on the Mississippi River, August 9, 1923.

other method of travel, and many times I have gotten upon my knees on a saddle to swim a horse through a stream and keep my legs dry, and very often I have made trips into the country on foot, as I could go through the fields and shorten the distance and rest a tired horse.

I remember quite distinctly one night in the spring of '86, riding about eight miles south of Morseville to see a patient, and expecting to get home in the early evening, but when I was ready to leave word had been left that I was to go down the valley to the Carroll County line to see another patient. By riding through a thick timber a distance of a mile and then walking a mile I could save two miles each way on the trip. I tied my horse in a clump of bushes and walked to the house, and by the time I got ready to leave it had turned quite dark and began to rain. I thought that I could find my way back to where I left my horse by the snow bank, along the fence, but by the time I got to the place where I had left the horse it was so dark I couldn't see a thing, nor could I find the horse, and the rain increased until I concluded to feel my way along a rail fence about ten or fifteen rods to an old abandoned stone house. I finally did reach this house and felt my way along the side of the house till I came to the door, or rather where there had been a door. Stepping upon the threshold, I made another step and fell headlong into the cellar, as the floor and joists had been taken out of the house. I had read Indian stories where in the old trading posts and pioneer houses they would dig wells in the cellars so that they might have water should they have to remain blockaded, so I was afraid to move for fear of falling into a well. I could not reach the top or get hold of anything so I could get out, but I could see a place on the side of the cellar that seemed like an opening near where the door should be. I finally mustered courage enough to crawl on hands and knees, feeling cautiously every inch of the way, only to find the doorway packed with ice so solid I could not get a hole large enough to get through. I was getting quite chilly and very anxious to be on my way, so I went back to where I fell in and tried time and again to jump high enough to get a hold to pull myself out, which I finally managed to do. I went back to where my horse was tied and after prowling around for what seemed to be a very long time, I heard something snap as the break-

ing of a twig. I proceeded in the direction of the sound and found my horse. I mounted and lay my head on the neck of the horse, so as not to be knocked off by the limbs of the trees. The horse took me out of the timber to the road where there was a school house, so I stopped here, pried a window open, and as there were a few coals burning in the stove, built a fire, put the horse in the woodshed, and after getting partly warm, started for home, arriving somewhat exhausted at 5 a. m.

In winter I would carry a hand axe with me for the purpose of cutting fences, so that I might get through on night drives, which at that time were many. The majority of the calls would come at night about the time the family would decide Mary or Johnny were worse. Many times I have left my office at bed time and worked all night to get to a patient. They thought in those days, just as many do today, "Doc can make it," but it would be too bad for them to get out and help you through—they are not used to the exposure, and, besides, Doc gets paid for it. I remember one of those cold winter nights in December, raining hard all night, that Dr. Stealy, Dr. Stafford, with a nurse (now superintendent of the General Hospital at Freeport), and I drove from Stockton to Camp Creek, a distance of thirteen miles, arriving at a ford before daylight. I had crossed the ford the evening before and told Dr. Stealy, who was riding with me, that we would have to ford that stream a little farther down. He did not seem to think anything of it, so when we arrived at the ford I called back to Dr. Stafford and the nurse to put down the top and at the same time I lowered the top on my buggy. It did not look good to me, but we drove into the rushing water, which proved to be very much deeper than we had thought. Our horses were going through the ice and disappearing under the water, the buggy, team and all floating down the stream, high banks on either side with only a narrow cut to get out, and we missed that. The buggy, team, Dr. Stealy and I floated down stream a few rods, striking a fence which upset the buggy, and we were both fighting to get out. Ice cakes as large as three to four feet square and about ten inches thick would strike us and make us think that we were gone. I caught hold of the bows of the top and hung onto it, but an ice cake struck it, tearing off the seat, and we were carried

down the stream about fifteen or twenty rods, where I could touch bottom and worked to the bank. Dr. Stafford came running to me and, lying on his stomach, gave me a hand. Dr. Stealy was carried about twenty rods further down the stream, where a ravine entered the creek making a whirl in the current which threw Dr. Stealy on a bed of gravel, unconscious and helpless when we found him, with his arms and chest above water. We then took Dr. Stafford's team and put Dr. Stealy in the buggy and rushed him to a house about a half mile distant. The nurse and Dr. Stafford cared for him while I changed my clothes (which were furnished by the farmer at whose house we stopped). Dr. Stealy also got some clothes to put on after a few hours in bed. And during this time we hung our clothes around the stove and by noon found a place to ford through a field and went on and operated on a case of appendicitis. My team was found at about 10 o'clock with the front wheels of the buggy tangled up in a wire fence about three miles away. I could tell you of many other rather tough experiences, but I know all of you who do country work have plenty of them.

The first resection of a bone I ever witnessed was done by Dr. Caldwell in 1881. A farmer got tangled in an old-fashioned tumbling rod while threshing and tore his arm out of the socket. This operation was done by Dr. Caldwell of Freeport and Dr. Kerlin of Widows Grove. They used a spray of carbolic acid, which I held in a position to throw a continuous spray on the field of operation. The resection, however, did not prove a success as a few weeks later they amputated the arm. The man is still living. Dr. Stealy and I were students at this time in Dr. Caldwell's office.

Typhoid fever patients at that time were not allowed water except in spoon doses, and the older doctors would not allow the bowels to act unless voluntary, until after ten to fourteen days. We were cautioned to hold the bowels with opium. I remember of an old man with typhoid fever who escaped his attendants one night and crawled a distance of about ten rods from the house to a spring, lying on his belly and filling himself with the spring water, then fell asleep. When found by the neighbors (they did not have nurses in those days, and the neighbors took care of one another), he was too weak to rise. They immediately sent for Dr. Kerlin to come, but

it was raining, so he told me to go, saying, "By gads, he is a dead one anyway, and there is no use of me going." Yet this man lived for years afterwards.

Dr. Caldwell's method of treatment at that time was very similar. In pneumonia the profession were still inclined to the blood-letting, and for many other diseases you were expected to be prepared to bleed. However, leeches and cupping were used more than general blood-letting.

A leech would draw about four times its weight of blood and the average weight of a leech is about one-half dram, or more. One ounce of leeches would be necessary to extract about four ounces of blood. Acute congestion of lungs when aeration of blood is impeded, with extensive stases on venous side, pulmonary hemorrhage when dependent, and acute congestion of the lungs, are relieved by an opening in the vein in the arm. The pain of acute pleuritis and acute peritonitis was relieved by bleeding, and many other pains were treated in this manner. Acute gastric, enteric and peritoneal inflammations were treated either by cupping or leeches. Typhlitis and peri-typhlitis, hemorrhoids and many other forms of inflammatory troubles were treated in this manner.

Aquapuncture and firing in nervous inflammation were quite a favorite method of treatment. Aquapuncture needles about three inches in length and having a red wax, hard rubber or metal head, are employed for this purpose. They are introduced by a rapid rotary motion.

Baunscheidtismus is a form of aquapuncture so named from its inventor. The instrument consists of a heavy disk, about one-half inch in diameter. Having inserted into it about twenty-five sharp needles, which are driven into the skin by pressing a button which loosens a spring, driving the needles through the skin. Then Croton oil or other suitable counter-irritants was rubbed into the wound; mostly used in tic-douloureux, sciatica, lumbago, etc. These methods were fast being discarded by the younger doctors at the time I began to practice, but we had to argue the point both with the older men in practice, as well as the laity (which was much like trying to teach your grandmother to suck eggs).

Tooth extracting was quite a part of the old-time doctor's work. One of the older doctors tried to extract a tooth for a very large man, whose teeth were very large and well set. He

failed to get the tooth, so the young man and several of his friends came over to the young doctor's office and I knew it was up to me to get the tooth, which I did, and also got quite a portion of alviola with it. I managed to pry the alviolar process loose from the tooth before exhibiting it to the crowd. The man's jaw healed nicely and never any more trouble from it. I felt then, as I have many times since, that nature is very kind to the doctors and patients in making reparation for errors.

We had the nerve to charge 50 cents for such work. The charges for O. B. cases either in the village or sixteen miles out were from \$5.00 to \$10.00—no mileage. However, I never charged less than \$8.00 and on long night drives in the country as high as \$10.00. The \$10.00 charge caused considerable dissension among the people. Office work ranged from 25 cents up, sometimes even as high as a dollar; but it took a lot of powder's and a large bottle of medicine to make the dollar charge. We charged a dollar a call in the village and 50 cents a mile for country driving up to five miles, after that 25 cents a mile, day or night. We carried about twenty different medicines and from them we tackled anything that came along. Opium, jalap, C. C. pills, calomel, Dovers, Epsom salts, castor oil, ergot, bismuth, ipecac, quinine, potassium bromide, iodine, sodium bicord, squills, carbolic acid, tartar emetic, vomica and a few others, and always had to have brandy.

A young doctor had a hard time making the older doctors realize that it was not a crime to try and locate in the same field, which the old man seemed to think belonged to him. You didn't get any support or encouragement from him, as a rule, yet I must say for Dr. Joseph Brown that he was a friend to me from the first. I think that our medical societies have caused a better and more fraternal feeling in the profession. At that time there was a medical society in the county, but it never flourished. I remember I was invited to attend a meeting at Elizabeth and read a paper in 1884 or '85. Dr. Phelps was secretary of the society, or at least he invited me to attend and read a paper. The county was without a medical society until the present society was organized in 1900 through the untiring efforts of Drs. Godfrey, D. G. Smith, Hutton, Stafford and a few others. Most all have passed over the unknown divide. I know

no better way to express my views on the benefits of the medical society than to read an extract from the first annual address of the first president of the society, Dr. H. T. Godfrey:

"No man, be he ever so great, can afford to live alone; no man can evolve from his inner consciousness all wisdom and all truth, and no man, be he ever so learned, and his experience so great, but can learn something from his perhaps less experienced and less erudite neighbor.

"No two men look at any subject from exactly the same standpoint, and consequently the nearer we come to our fellow workers, and the freer our interchange of ideas and experiences, the better for us all.

"The medical society gives us the interchange of thought and experience. If it is rightly used it is a great educator for busy practitioners of our art."

We, as the Jo Daviess County Medical Society, owe much to Dr. Godfrey, who was the first president and continued president for several years. He could always be depended upon to do all he could or the betterment of the society.

To Dr. D. G. Smith, first secretary, who carried this burden for years, perhaps more than any other member of the society, we are indebted for the existence of the society. I know how hard he worked to keep up the interest in the society, making it the banner society of the state. Many others of the society were perhaps as much interested but had not the tact to do as much as this man along that line.

I have here a list of all the doctors registered in Jo Daviess County since 1887, when the Registration Act was passed. I find that quite a few doctors are not registered. Dr. Logan registered in 1912, and there were no entries since then, except Dr. Buford in 1922. I do not know where the fault lies, but several doctors located in the county since these, but no record.

Doctors have located in Stockton since 1884, including myself, and osteopaths and chiropractors galore.

I have arrived at an age where I feel like giving advice, but I know how much this free advice is heeded, so will refrain from doing so.

Not only did we older doctors have difficulties to overcome in the practice of medicine, but also in advantages at college, in equipment, etc. However, it is qualities that fit a man for a life of

usefulness, not the mental possession of facts. The educated man is the useful man. The successful man is he who can weld life and education together. Speaking of qualities, how would the scientific cultivation of this do, classified under three distinct heads: bodily qualities, mental qualities, and moral qualities?

Bodily Qualities—Health of digestion, circulation, breathing, manual skill and ease of handling all muscles of the body.

Mental Qualities—Painstaking, patience, decision, perseverance, courage, following directions, tact, concentration, insight, observation, mental activity, accuracy and memory.

Moral Qualities—Putting one's self in another's place, or thoughtfulness for others, which includes kindness, courtesy, good cheer, honesty, fidelity to a promise, self control, self reliance and self respect.

HEMATURIA WITH PARTICULAR REFERENCE TO ESSENTIAL HEMATURIA

Associate in Genito-Urinary Surgery, Northwestern University Medical School.

HARRY C. ROLNICK, M. D.

CHICAGO

By the term hematuria we understand the presence clinically of gross evidence of blood in the urine. Microscopic blood is usually not included under this term.

The urinary tract throughout is extremely vascular and is so readily subject to engorgement that practically any pathologic condition anywhere along the tract and many outside of it may be the cause for blood in the urine. Trauma, congestion, inflammation, ulceration, foreign body or growth may be the etiologic factors. Various constitutional and blood disorders and nephritis due to the ingestion or absorption of toxic substances that produce renal irritation may cause it.

When the patient notices blood in his urine or bleeding from the urethra he becomes worried and seeks immediately for relief and diagnosis. It may be well to mention that urates or bile in the urine may possibly be mistaken for blood but these conditions should offer no difficulty in differentiation.

The cause for the hematuria can usually be diagnosed by the associated symptoms and signs and the history of the case. Blood in the urine,

however, may be the only finding. The older methods for determining the source of the blood such as: the color of the urine, whether dark or light red; the time of appearance of blood in the urine with relation to urination, and the shape of the clot are all unreliable.

The cystoscope has made possible the exact diagnosis of lesions of the bladder and also determines the source of the blood, if from the kidneys. In some cases, as acute nephritis, the diagnosis can be made without instrumental examination; in others, instrumentation is contra-indicated. Excluding these conditions a cystoscopic examination is usually necessary to establish a diagnosis.

In cases of uni-lateral renal hemorrhage it may be impossible to determine which kidney is the source of the bleeding, if the patient is cystoscoped after the hemorrhage has ceased. If other evidences are present, they help to establish the diagnosis, but often there are no associated findings to help one out.

We shall now consider a few of the conditions producing hematuria that may be of clinical interest.

Bleeding from the anterior urethra of any appreciable amount presents itself as a free flow of blood from the meatus. Most often the bleeding ceases upon slight compression of the meatus. Occasionally however the hemorrhage may be profuse and persist. Astringents injected are of little value here. The best way to take care of the situation is either to have the patient compress the penis tightly with his full hand or the bandaging tightly of the entire organ.

In suspected rupture of the posterior urethra following a direct injury to the perineum such as falling astride a hard object, the bleeding from the meatus may be severe and last for some time. The indications for treatment are definite. If the patient is able to urinate and no swelling appears in the perineum, the condition is simply one of contusion or tear of the urethral mucosa. Catheterization and instrumentation are unnecessary and are contra-indicated because of the added trauma produced. If the patient is unable to urinate and develops a swelling in the perineum—indicating urinary extravasation—perineal urethrotomy should be performed at once. Here also catheterization and instrumentation are contra-indicated. They merely add to the trauma and possibly spread infection. The only

time an instrument should be inserted is when doing a urethrotomy with the sound as a guide—such were the teachings of J. B. Murphy.

During the course of acute gonorrhea, the presence of blood at the end of urination, together with symptoms of posterior urethritis, indicates an increased severity of the infection and the congestion of the prostatic urethra. The patient should be put to bed and all local treatment should be discontinued.

Bleeding from the prostatic urethra in prostatic obstruction does not necessarily mean cancer of the prostate. It may occur with simple adenomatous prostate and be quite profuse. Following the hemorrhage, symptoms of obstruction and engorgement are markedly relieved.

Ulcers or tumors of the bladder, producing hematuria, are usually otherwise symptomless, if located outside of the trigone. An infiltrating carcinoma may cause very little bleeding while a benign papilloma may produce considerable hemorrhage.

In some cases of profuse bleeding from the bladder a cystoscopic examination may be impossible, for the fluid medium immediately becomes cloudy. If the bleeding is from the kidneys, a few washings allow for a clear fluid medium. This is a way of differentiating bladder and kidney hemorrhage.

Stones in the bladder may be located in a diverticulum or behind the prostate in prostatic hypertrophy and produce no bleeding and be found only upon cystoscopic examination, or when the bladder is opened.

Instrumentation within the bladder should be performed gently. The mucosa is very easily traumatized. I have many times found cystoscopically sub-mucous hemorrhages in the bladder of patients who have been sounded. In passing a sound, it is not necessary to get much beyond the right angle to be in the bladder; the handle of the instrument need not be depressed far down, also it is not necessary to rotate the sound to know that it has passed the cut-off muscle.

Contusions of the bladder region may be followed by hematuria. If the patient is able to urinate, rest in bed and sedatives is the only treatment necessary. Cystoscopy is contra-indicated—one may damage the bladder still more as a result of instrumentation and distention.

Injury to the kidney region, with hematuria following, even if quite profuse is in itself not

an indication for operative interference, unless the patient is becoming exanguinated. If a tumor develops in the flank, together with the hematuria, it is an indication of considerable damage to the kidney, and surgery should immediately be resorted to.

Chronic urinary retention of considerable degree should be relieved only gradually. If a patient has 600 to 1,000 CC or more of residual urine, the sudden change in intra-vesical and renal pressure as a result of the sudden evacuation may be result in hemorrhage from the bladder and kidneys, and may also produce shock.

When constitutional and blood disorders and acute hemorrhagic nephritis are ruled out as the cause of kidney hemorrhage, the diagnosis usually rests between tumor, stone and tuberculosis. In tubercular kidney the bleeding is rarely marked and the associated symptoms, together with bladder involvement make the diagnosis.

Stone in the kidney as a rule offers no difficulties—the x-ray findings are present in most cases together with pus in the urine and attacks of ureteral colic.

Hematuria is a prominent symptom in kidney tumor—a painless, apparently causeless hematuria in one past middle age is suggestive. If the tumor is small and not palpable, the diagnosis may be difficult. The pyelogram may help here. Encroachment of the tumor on the kidney calices will limit the outline of the pyelogram and is diagnostic.

One should not immediately turn to a diagnosis of essential or idiopathic hematuria if the above conditions can be ruled out. Other definite conditions may be the cause for the bleeding.

The onset of acute pyelitis may be blood, followed later by pus in the urine. A pyo-nephrosis may be another cause. Bleeding from one or both kidneys may be due to bacterial infection—*bacillus Coli* may be the cause for persistent bleeding that may last for weeks.

Undoubtedly the most common cause of the majority of cases that are diagnosed as essential hematuria is chronic interstitial nephritis—contracted kidney. There may be a unilateral chronic nephritis but this is not common. The bleeding in these cases, however, is usually unilateral. Bleeding from contracted kidney is probably dependent upon increased pressure within the kidney or the rupture of arterio-

sclerotic blood vessels. Twenty years ago Israel stated that chronic nephritis was the cause for most of the cases of undiagnosed renal hemorrhage. Careful blood function and urinary function tests, urinalysis and systemic findings will establish the diagnosis in most instances.

Other more obscure and uncommon causes for renal bleeding are: 1. Varix of the renal papillae; 2. Papilloma of the kidney pelvis; 3. Pyelitis granulosa and 4. Hemangiona cavernosum.

Since essential hematuria is a negative diagnosis, all steps should be taken to rule out all possible causes. Occasionally a kidney stone producing hematuria may remain undiagnosed for a long time.

However, when all has been said and done, there still remain cases of bleeding from the kidney for which, after the most thorough and painstaking examination, no cause can be found.

These are for the want of a better name, "The Essential Hematurias." It is an apparently causeless, usually painless hematuria, involving one kidney only, rarely both. Essential hematuria is also a clinical diagnosis, for although the pathologist may be able to make a diagnosis after the kidney has been removed, it may be impossible to make a clinical diagnosis with the methods at our command.

To limit these cases still further, numerous sections from various parts of the kidneys that have been removed as a life saving measure in persistent severe hematuria, time and again show nothing.

Numerous theories have been brought forth attempting to explain this condition. The most popular one is that it is due to an angio-neurosis and also that it is a pre-renal condition. There is some basis for the latter, for some of these cases are followed by a contracted kidney.

In these cases all the patient has is bleeding from the kidney with no other symptom or finding. The bleeding may last a few days, weeks, months, or even years. It may cease spontaneously and suddenly recur.

Various methods of treatment have been recommended and cures reported following the use of various drugs. Distention of the pelvis with astringent solutions or with air seem to offer best results.

The hematuria rarely responds to any treatment directed locally to the pelvis of the kidney

or to internal hemostatics. When the hemorrhage ceases following treatment, the truth of the matter is that the bleeding would have ceased spontaneously. One may attempt everything possible without result of any kind and then find that the bleeding clears up of its own accord. The only thing one can say is that one must trust to God that the bleeding will stop.

The hemorrhage may persist for months and years, be intermittent and not be severe enough to produce much disturbance—this is the most common type seen. In these cases operative measures are contra-indicated, no matter how long the bleeding continues.

If the patient is becoming exanguinated and all measures, locally and systemically, have failed to give relief, nephrectomy, which can be the only operation considered, should be resorted to as a life saving measure.

It is always well to remember that the other kidney may begin to bleed later, so that nephrectomy should be done only as a life saving measure, for one may have the same condition to meet with later in the other kidney.

THE MEDICAL FRATERNITIES OF CHICAGO*

W. A. NEWMAN DORLAND, M. D.

CHICAGO

Chicago, in the last 30 years, has been a fertile field for medical fraternities. During that time many Greek letter chapters have been organized, some, it is true, destined to die an early death, but for the most part persisting to the present as thriving and effective organizations in the furtherance of college work. Today there are twelve medical fraternities in the city represented by twenty-eight chapters. These are distributed among the various colleges in the following proportion:

College of Physicians and Surgeons, the Medical Department of the University of Illinois:

1. Alpha Kappa Kappa, Eta Chapter, 46 Members
2. Nu Sigma Nu, Eta Chapter.....40 Members
3. Phi Beta Pi, Iota Chapter.....46 Members
4. Phi Chi, Upsilon Iota Chapter.....39 Members
5. Phi Delta Epsilon, Alpha Alpha Chapter43 Members
6. Phi Lambda Kappa.....26 Members
7. Phi Rho Sigma, Beta Chapter.....38 Members

*A report presented at the Biennial Meeting of the Grand Chapter of the Alpha Mu Pi Omega Medical Fraternity, Milwaukee, Wis., June 21, 1923.

COLLEGES

Fraternities.	University of Illinois, College of Medicine	Northwestern University Medical School.	University of Chicago, Rush Medical School.	Loyola University School of Medicine.	General Medical College of the Con- stitution (formerly Hahnemann Medical College).	Chicago Medical School.	Chicago Membership of Fraternity.
Alpha Epsilon Iota			Beta Chapter Established 1898 34 Members				34
Alpha Kappa Kappa	Eta Chapter Established 1899 16 Members	Xi Chapter Established 1901 41 Members	Nu Chapter Established 1901 45 Members				132
Alpha Phi Mu						Alpha Chapter Established 1912 41 Members	41
Alpha Phi Sigma	Established 1910 Absorbed by Phi Delta Epsilon 1918						
Nu Sigma Nu	Iota Chapter Established 1896 40 Members	Established 1891 19 Members	Kappa Chapter Established 1893 75 Members				164
Nu Sigma Phi			Beta Chapter Established 1902 17 Members	Epsilon Chapter (So- pority) Established 1902 10 Members			27
Phi Alpha Gamma					Eta Lambda Chapter Established 1894 23 Members		23
Phi Beta Pi	Iota Chapter Established 1901 16 Members	Theta Chapter Established 1902 14 Members	Delta Chapter Established 1900 38 Members	Alpha Omega Chapter Established 1921 14 Members			172
Phi Chi	Upsilon Iota Chapter Established 1918 39 Members	Kappa Rho Chapter Established 1920 46 Members	Rho Chapter Established 1905 79 Members	Phi Sigma Chapter Established 1905 10 Members			204
Phi Delta Epsilon	Alpha Alpha Chapter Established as Alpha Phi Sigma 1910 43 Members	Alpha Beta Chapter Established 1907 27 Members	Alpha Gamma Chapter Established 1902 40 Members				110
Phi Lambda Kappa	Established 1921 26 Members		Gamma Chapter Established 1921 9 Members	Gamma Chapter Established 1920 24 Members			59
Phi Rho Sigma	Beta Chapter Established 1894 38 Members	Alpha Chapter Established 1890 42 Members	Gamma Chapter Established 1895 36 Members				116
Pi Upsilon Rho (Ustian)					Prima Chapter Established 1878 9 Members		9
Total Fraternity Membership in College	278	249	373	118	32	41	1091
Total Students in College	383	402	466	224	136	175	1786
Percentage of Fraternity Students	72.6%	61.9%	80%	52.6%	23.5%	23.4%	61%

Seven fraternities with a total membership of 278.

Northwestern University Medical School:

1. Alpha Kappa Kappa, Xi Chapter....41 Members
2. Nu Sigma Nu.....49 Members
3. Phi Beta Pi, Theta Chapter.....44 Members
4. Phi Chi, Kappa Rho Chapter.....46 Members
5. Phi Delta Epsilon, Alpha Beta Chapter27 Members

6. Phi Rho Sigma, Alpha Chapter.....42 Members
- Six fraternities with a total membership of 249.

Rush Medical College, University of Chicago:

1. Alpha Epsilon Iota, Beta Chapter...34 Members
2. Alpha Kappa Kappa, Nu Chapter....45 Members
3. Nu Sigma Nu, Kappa Chapter.....75 Members
4. Nu Sigma Phi, Beta Chapter.....17 Members

5. Phi Beta Pi, Delta Chapter.....38 Members
 6. Phi Chi, Rho Chapter.....79 Members
 7. Phi Delta Epsilon, Alpha Gamma Chapter40 Members
 8. Phi Lambda Kappa, Gamma Chapter 9 Members
 9. Phi Rho Sigma, Gamma Chapter....36 Members
- Nine fraternities with a total membership of 373.

Loyola University, School of Medicine:

1. Nu Sigma Phi, Epsilon Chapter.....10 Members
 2. Phi Beta Pi, Alpha Omega Chapter..44 Members
 3. Phi Chi, Phi Sigma Chapter.....40 Members
 4. Phi Lambda Kappa, Gamma Chapter.24 Members
- Four fraternities with a total membership of 118.

General Medical College of the General Medical Foundation (Formerly Hahnemann Medical College):

1. Phi Alpha Gamma, Eta Lambda Chapter23 Members
 2. Pi Upsilon Rho, Prima Chapter..... 9 Members
- Two fraternities with a total membership of 32.

Chicago Medical School:

1. Alpha Phi Mu, Alpha Chapter.....41 Members
- One fraternity with a membership of 41.

A study of these fraternities and their chapters affords some interesting statistical information. The University of Illinois with 383 medical students during the last college year had 278, or 72.5 per cent., members of medical fraternities. The Northwestern University had 402 medical students of whom 249, or 62 per cent., were members of medical fraternities. The Chicago University had 466 medical students of whom 373, or 80 per cent. were medical fraternity men. Loyola University with a medical student roll of 224 had 118, or 53 per cent. members of medical fraternities. The old Hahnemann College with 136 students had 32, or 24 per cent. medical fraternity members; and the Chicago Medical School, with 175 students, had 41, or 24 per cent. members of medical fraternities. Of the total medical students in Chicago, 1,786, during the last year, 1,091, or 61 per cent., were members of the medical fraternities. This indicates an undoubted predilection of the medical students of Chicago of the present time for medical fraternalism. It is interesting to note in this connection that non-medical Greek letter fraternities are also well represented among these medical fraternity men, including the Alpha Omega Alpha, Phi Beta Kappa, and Sigma Xi Fraternities.

The strongest medical fraternity in Chicago at present, from a numerical standpoint, is the Phi Chi with a membership of 204. This is closely followed by Phi Beta Pi with 172 members, Nu Sigma Nu with 164 members, Alpha Kappa Kappa with 132 members, Phi Rho Sigma with 116 members, and Phi Delta Epsilon, the Jewish Fraternity, with 110 members. The other fraternities in the order of their numerical strength are Phi Lambda Kappa, 59 members; Alpha Phi Mu, 41 members; Alpha Epsilon Iota, 34 members; Nu Sigma Phi, 27 members; Phi Alpha Gamma, 23 members; and Pi Upsilon Rho, 9 members.

MEDICAL MEN WHO HAVE ATTAINED
FAME IN OTHER FIELDS
OF ENDEAVOR

W. MOORE THOMPSON, A. B., M. D.

CHICAGO

Continued from page 148.

Other modern medical fictionists include the late Max Nordau, the famous European novelist and head of the Zionist Movement, which is trying to have Palestine, the homeland of the Jews, restored to them. Nordau was classed among the three greatest contemporary authors. Every reader of modern fiction will recognize the name of Henry C. Rowland, as the author of splendid stories of adventure, but probably not one in a thousand knows that Rowland is a doctor. Rowland was Surgeon-general on the U. S. Army Hospital-ship "Relief," and he has seen shore duty on Luzon and among the southern islands of the Philippines. He had practiced for a time in New York city; but the success of his stories was so great that he relinquished his practice for literature. John Chalmers, not to be confused with the great divine Dr. Thomas Chalmers, also deserves to be mentioned as a very graceful writer of romantic stories. Some years ago, Sir Henry Thompson, M. D. produced a strange little volume, "Charley Kingston's Aunt," which enjoyed the season's success; while Dr. W. Somerset Maugham, also an English physician, is the author of "The Circle," acclaimed by critics the greatest drama of the year, in which John Drew and Mrs. Leslie Carter jointly starred to crowded houses. Dr. Maugham is the author of "The Moon and Sixpence," the book

which two years ago took two continents by storm. His wife is the daughter of a physician and he himself studied medicine at St. Thomas Hospital, London, and at the Heidelberg University. Dr. Joseph Hergesheimer is another physician who has attained fame and fortune; and the moving picture plays, "Cytherea" and "The Bright Shawl," are two of his best known works. Finally Dr. A. S. M. Hutchinson, of England, is the author of "If Winter Comes," the greatest selling work produced this season by any writer in the world, and other popular stories; and Georges Duhamel, doctor of medicine and army surgeon in France, has recently won the famous Goncourt prize in literature, and is today "a writer with a world audience."

2. THE DOCTOR IN SCIENCE AND THE ARTS

It is a long stretch from Galen to the present day, yet we must go back to that early Greek physician to include in our study one who has ever been counted among the first and most famous of his profession who have composed literary works. He was so voluminous a writer on philosophical subjects that scores of books on logic and ethics have been fathered upon him without much question as to his authorship thereof. He is credited with eighty-three treatises, the genuineness of which is not disputed; and, excluding the spurious works, there yet remain a further fifteen fragments and fifteen commentaries on Hippocrates which may be accepted as his in part or whole. He made himself master of the medical, physiological and scientific knowledge of his time, and left a record of this period (130-201 A.D.) of inestimable value. In addition to preparing this massive work, "he found time to devote himself to various branches of philosophy with such success that later writers were well pleased to trade with the talisman of his name." And all this in addition to being famous in his medical practice at Rome, where he was physician to Marcus Aurelius, the scholarly Roman Emperor. Next to Hippocrates, he was the greatest of clinical observers.

Then, we must not forget Girolamo Fracastoro (Fracastorius), the man to whom we owe the word "syphilis," and who died just after the middle of the sixteenth century. "Far from being a specialist he was one of the all round men of human history. He was a physician, a geologist, a physicist, an astronomer, a pathologist, and a

poet. He was the first scientist to refer to the magnetic poles of the earth, in 1543. He shared with Leonardo da Vinci the honor of being the first to "appreciate the real significance of fossils." He used the word "syphilis" in a poem with the title "Syphilis sive Morbus Gallicus," which was published at Venice in 1530. His greatest merit consists in the discovery of the theory of infection by microorganisms in so-called infectious diseases.

How many here know that Leonardo da Vinci, the greatest of all painters, was, as William Hunter states, "the greatest anatomist of his epoch?" Anatomy, largely through the great artists of that period—notably Michel Angelo, Raphael and Leonardo da Vinci—was chiefly developed in Italy. In recent years many hundreds of the sketches, cartoons and chalk drawings of these artists have been discovered, and Leonardo did his work so well that his sketches have been considered a treasure. Garrison, in his "History of Medicine," says of them: "Startlingly modern in their accuracy and display of physiologic knowledge, these impromptu sketches, made beside the dissected subject, reveal such acquaintance with muscular anatomy as was possible only to the Greek sculptors. Leonardo taught painters and sculptors that a scientific knowledge of artistic anatomy can be gained only at the dissecting-table. He made over 750 separate sketches, including not only delineations of muscles, but drawings of the heart, the lungs, the cervical, thoracic, abdominal and femoral blood-vessels, the bones and nerves, with deep dissections of the viscera and cross-sections of the brain in different planes."

Among these men should also be included one, "Giles Firman," whom Oliver Wendell Holmes mentions in his "Medical Essays" as having practiced medicine in this country, but who, not succeeding, wrote to Governor Winthrop: "I am strongly sett upon to study divinitie; my studyes else must be lost, for physick is but a meene helpe." His lectures in anatomy were the first scientific teaching in the new world; and it is to be hoped he found the new profession more lucrative and successful than medicine had proved to be.

Sir John Hill, an eighteenth century physician, was a fairly extensive litterateur, and in addition to producing treatises on botany, medicine, natural history, and philosophy, wrote half

a dozen novels and several dramas. His *chef d'oeuvre* was "The Vegetable System," a work of such magnitude that it ran to twenty-six volumes, a copy of which was presented to the King of Sweden and procured for the author the distinction of being included in the Order of the Polar Star.

As Egdahl has said: "Linnaeus exists in the minds of most people as a great botanist—as the man who introduced system in the classification of plants." His work in zoölogy is fairly well known, but his contributions to medicine are but little known, especially by the medical profession. He was a graduate of the Medical College of Hardeswick, Holland. Subsequently he was appointed physician to the fleet at Stockholm, and, later, botanist to the King. In 1741, he was appointed to the professorship of physic and anatomy at Upsala, and a year later became professor of botany. In addition to his botanical work his name is entitled to a lasting place in the history of medicine.

It must not be forgotten that Henle, the famous German pathologist and anatomist, was also a practicing physician for some time; and only recently, late in 1921, John Beattie Crozier, English physician and distinguished philosopher, historian and political economist, died in London at the age of 71 years. "His reputation was made outside his profession, and his name is unknown to the great majority of its members, for few of them take interest in the highly intellectual work to which he devoted his life and for which he sacrificed himself. Though from a border family among the little Scottish colony of Galt, Canada, and educated at Toronto University, he developed his life as a doctor and philosopher in London." His "History of Intellectual Development" had an excellent reception from the first, and eventually he received the public appreciation of distinguished contemporaries, including Lord Bryce, Sir William Osler, Frederic Harrison, and others, for "his eminent services to British scholarship and speculation, and his unselfish endeavors for human welfare."

I do not feel that this section of my paper would be complete without mention of my very dear friend and fellow member of the Grosis society, Dr. W. A. Newman Dorland, who not only has made a very valuable contribution to scientific literature in his popular "American

Illustrated Medical Dictionary," but who has written several books of general interest which should give his name a permanent place among the medico-literati of our generation. His best known works of the latter class are "The Sum of Feminine Achievement," "The Age of Mental Virility," and his satire on snobbery, "What Billingsgate Thought."

3. THE DOCTOR IN POLITICS AND STATESMANSHIP

If the profession of letters has been the favorite exchange made by physicians who desired to branch out in their lifework, politics has ranked a close second. That storehouse of knowledge and interesting information, the "Medical Essays" of Oliver Wendell Holmes, enlightens us greatly in this matter. Among other facts, long since forgotten, he states that Roger Williams is said to have saved many lives in a kind of pestilence which swept away many Indians. Who would ever have associated the ascetic Roger Williams with the practice of physick! Holmes also notes that the two Winthrops, John Sr., second Governor of Massachusetts Bay, and his son, John Jr., Governor of Connecticut, both sustained a certain relation to the healing art. The elder Winthrop is said by John Cotton to have been "help for our bodies by Physick (and) for our Estate by Law;" while his son, the Governor of Connecticut, was as much physician as magistrate and governor. He practiced so extensively that but for his more distinguished title in the State he would have been remembered as the "doctor." The records of his medical experience have, fortunately, been preserved, and they give us a fair idea of the way patients were treated in New England in the latter part of the seventeenth century when they fell into educated hands.

Of a later period mention must be made of Joseph Warren, who lived, when King George the Third was ruler of the thirteen American colonies, on a hill in Roxbury, Massachusetts, midway between the village of Dorchester and the town of Boston. He became a busy and popular doctor; but eventually he went into politics and became so patriotic that a rabid Tory wrote concerning him: "One of our most bawling demagogues and voluminous writers is a crazy doctor." It was Dr. Warren who did more than any other person, with the exception of Samuel Adams, to arouse the spirit of liberty in Massachusetts. He

it was who sent Paul Revere upon that world-famous ride through Arlington, Concord, and Lexington. As a soldier, Dr. Warren was as energetic and enthusiastic as in his practice of medicine, and although he continued his practice when the times became strenuous and the hired soldiers of King George threatened Massachusetts, he prepared to fight. When the news of the battle of Lexington reached him he left all and rode to the scene of action. Later, when the battle of Bunker Hill was fought, Dr. Warren had become a major general, and perished in that fight by means of a musketball.

One of his contemporaries, Benjamin Rush, the most conspicuous of American physicians of the Revolutionary period, was termed the "intellectual offspring of the movement which produced the Revolution." "The same hand," says one of his biographers, "which subscribed the declaration of the political independence of these States, accomplished their emancipation from medical systems formed in foreign countries, and wholly unsuitable to the state of diseases in America." I must also mention here Dr. Michael Lieb, a soldier of the Revolution, and surgeon of one of the Associator Battalions of Philadelphia. He subsequently became one of the founders of the famous College of Physicians of Philadelphia, and after a notable career in medicine, entered politics, became known as the "czar of Philadelphia County," then became a brigadier general and finally United States senator from Pennsylvania.

To this same generation belongs Dr. Jean Paul Marat, who acquired his medical degree at Bordeaux, and practiced for some time in London, where he wrote his "Philosophical Essay on Man" and certain medical treatises. His fame as a clever doctor was great in 1775, and Charles Xth made him brevet doctor to his Guards. When the French Revolution broke out in all its wild fury, Marat identified himself with the leaders of the movement, became one of its controlling influences, and met his death at the hands of Charlotte Corday. The reputation for cruelty and prejudice which he left behind him was unenviable, to say the least. Associated with his name will always be remembered that of Dr. Guillotine, irrevocably attached to the formidable machine which contributed so dreadfully to the terrors of the Revolution and which still remains the national method of capital punishment in

France. It is a curious reflection on the medical profession that the two machines which have done so much toward the destruction of human life should have been devised by men who, hypothetically at least, had signed the Hippocratic oath to conserve life. Dr. Richard J. Gatling, of this country, invented the instrument of warfare known by his name, which has probably destroyed more lives than any single doctor could ever hope to save by personal ministrations. On the other hand stands Dr. Alexander Graham Bell, the inventor of the telephone, which has done more to preserve life and improve our civilization than any other improvement or discovery of the last century.

A little later in our national development, a graduate of the University of Pennsylvania in 1843, Dr. William Walker, attained to a position never before nor since held by an American citizen. This man of a roving, adventurous disposition, became a filibuster in tropical America and, through some strange freak of fortune, reached the presidency of Nicaragua, only to face eventually the firing squad, which thus, untimely, ended his career as a soldier of fortune. Later still, up in the "Granite State," a young man, Jacob Gallinger, studied medicine and became a country practitioner before the Civil War. After the war his fellow citizens sent him to the State Legislature. Politics interested him so much that he ceased his practice, preferring to make medical laws instead of pills, as was the general custom in those days. He subsequently became Surgeon General of the State, Chairman of the State Committee, Representative to Congress and United States Senator.

It is a far cry from the doctor's office to the Pope's chair and it requires quite a vivid imagination to even consider it among the possibilities; and yet it is a matter of very interesting history that Pope John XXI (Petrus Hispanus) was a celebrated Portuguese physician. He was author of several medical works, notably the curious "Liber de Oculo," and also of a popular text-book on Logic, "De Summulæ Logicales." His pontificate extended from Sept. 8, 1276, to May 20, 1277, when he was killed by a collapsing roof in his palace. During his brief reign he excommunicated Alphonso III, of Portugal, for interfering with Episcopal elections; and established diplomatic relations with the Great Khan.

At the present time no mean number of medi-

cal men are holding positions of honor and trust in the world of politics and statesmanship. Physicians figure quite extensively in the republican Senate of France as also in the royal Senate of Italy. In the Central and South American republics the medical profession has been the common stepping-stone to political honor and preferment and, not infrequently, to the presidency of a number of those states. Lord Lister, the father of asepsis and antiseptis, was associated for some time, as a member of King George's privy council, with the famous doctor, the Right Honorable Sir Leander Starr Jameson, the physician, friend and most intimate associate of Cecil Rhodes. Dr. Jameson was the leader of the historic and fateful Jameson raid into the Transvaal, and subsequently became prime minister of South Africa.

Not to mention Dr. E. E. Taylor, who in addition to writing many beautiful poems, made a name for himself as reform mayor of San Francisco; Dr. Sun Yat Sen, who was chosen President of South China and may yet consolidate the entire Celestial Empire under his wise rule; and Dr. Hubert Work, graduate of the University of Pennsylvania and Postmaster General and Secretary of the Interior in the Cabinet of President Harding; we must not fail to note Dr. Charles (now Sir Charles) Tupper, who for many years in the little town of Amherst, Nova Scotia, assisted in ushering numerous sturdy "Blue-noses" into the world. Everyone liked him, and many a Nova Scotian boasts today that Sir Charles Tupper, ex-Premier of Canada, officiated at his birth. Because of this general affection for him, Dr. Tupper was sent by the citizens of Cumberland County to the local assembly. Once in politics he steadily rose until he reached the post of Premier. He also held the offices of High Commissioner for Canada in England, President of the Privy Council of Canada, Minister of Finance, Minister of Railways and Canals, and later, leader of the opposition in the House of Commons.

Sir Thomas Crosby, a man of great professional eminence and extreme culture, was the first doctor to become, recently, the chief of Guildhall, Lord Mayor of London, since the institution of that office over 700 years ago. The recent election of Dr. Royal S. Copeland as United States Senator for the "Empire State" marks an important advance made by medicine in the legis-

lative life of this nation. Dr. Copeland is the second physician to be elected to the present upper house of Congress, Dr. Joseph I. France, for the last six years United States Senator from Maryland, being his predecessor in that body. Dr. Copeland served efficiently as mayor of Ann Arbor, Michigan; and then, as Commissioner of Health of New York City, made a distinguished record for himself. All of my hearers know that England's present Ambassador to the United States is Sir Auckland Geddes, but I doubt if many know that he is a doctor and a distinguished professor of anatomy in his alma mater.

Among the medical statesmen of today two names loom high above all others. Leonard Wood, a native of New Hampshire, graduated in medicine from Harvard University and was a practicing physician in private life before he entered the army. His career has been marked by brilliant success, and he has served most capably as Major General in the U. S. army, Military Governor of Cuba, and Governor General of the Philippines. His candidacy for the presidency of the United States is of recent knowledge, and two years ago he tentatively accepted the office of Provost of the University of Pennsylvania, which he has but this last month resigned, preferring to remain Governor General of the Philippines.

Georges Clemenceau, the "Tiger of France," has all his life been a staunch and fearless fighter for what he believed to be the best interests of France. Before he was twenty he was thrown into prison for shouting "Vive la Republique!" on the streets of Paris in the midst of the celebration of one of the imperial anniversaries. Subsequently he practiced medicine in New York city, and became a specialist in skin diseases in Paris after some years. When he assumed the premiership of France he suspended his regular practice at his private residence in the Rue Franklin, and merely continued to give medical advice and treatment to those of his patients who were too poor to pay. He became the most masterful and adroit Prime Minister in the history of the present French republic. As doctor, author, editor, politician, statesman, he never wavered. In addition, he is also an able art critic, a lover of music, and a naturalist.

Royal Doctors. The medical profession and royalty would, to the average person, seem to be as remotely separated as any two stations in life

could be; yet even among the royalty of Europe has the doctor found his way, leaving an enviable record there—as is his usual wont.

The late Duke Charles Theodore, of Bavaria, was celebrated far and wide as an oculist, and had to his credit at the time of his death nearly 3,000 successful cataract operations, performed almost entirely among the poor. His daughter, the present Queen of Belgium, was for some years prior to her marriage to Albert, the trained assistant of her father; and today she is fully qualified to take up practice as an oculist. Ex-Queen Marie Amelia, of Portugal, secured, by dint of exhaustive study and by passing all the necessary examinations, a diploma as doctor of medicine. Her object in doing this was to enable her to exercise a more careful supervision and control over the hospitals and homes for the dying which she had founded and endowed at Lisbon. The recent Queen of Bulgaria has a medical degree, and, as a doctor, was able to assume active command of one of the most useful of ambulance trains that ever left St. Petersburg for the front during the war in Manchuria—a train which was instrumental in saving the lives of thousands of sick and wounded. Finally, Prince Louis Ferdinand, of Bavaria, who did such good work as President of the Imperial Cancer Research Society of Germany, was the leading gynecologist and obstetrician of Bavaria, in 1911; and, likewise held the rank of Surgeon-General in the armies of Germany and Spain, of which latter kingdom the young monarch was his nephew.

4. THE DOCTOR IN OTHER ACTIVITIES

The boldness of character and strength of will which are essential traits of most of the higher grade medical men, have served them well in times of emergency and have made of some of them successful men of adventure. It is interesting to note that Charcot, the Frenchman who explored the Antarctic regions, was a doctor; as was also Hays, who, with Dr. Elisha Kent Kane, a graduate of the University of Virginia, braved the terrors of the Arctic snow and ice in search of the lamented Sir John Franklin. It was a doctor, too, David Livingstone by name, who became the famous African explorer. He was a graduate of the Faculty of Physicians and Surgeons of Glasgow and he exemplified in his noted career the motto of his life: "Fear God, and work hard."

Also, we should mention under this heading that lion-hearted medical missionary to Labrador, explorer and prolific author, Wilfred Thomason Grenfell, than whom there lives no more worthy representative of our profession in other fields.

Finally, it has become proverbial to speak of doctors, as a class, as poor business men; and this accusation is almost always made as if it were a cause for reproach, or as if it indicated a defect of character. Rather should it be looked upon—if it exist at all, which I seriously doubt—as a trait of their supreme spirit of self-sacrifice and devotion to work of a humanitarian nature. It surely must stand to reason that not every man of so large a profession, numerically speaking, is inherently defective in the business sense. Rather, is it his ethical aversion to commercialism and his tendency to yield to a sympathetic outlook upon life which has often resulted in great, and even serious loss to himself and his family in many instances.

But when he concentrates his energies, as he occasionally does, upon the cultivation of the money-making brain-centers, no finer class of business man exists. When we recall such financial lights as W. Seward Webb, who practiced medicine in New York and later became the powerful financier, president of five railroads and two navigation companies, and a director in more than forty corporations; or Norvin Green, Vice-President of the American and Western Union Telegraph Companies, who was a practicing physician in Kentucky, we must admit the truth of this assertion. Moreover, Karl F. A. Von Welsbach, the man who invented the Welsbach light and the osmium lamp, was a doctor; as was Rufus H. Gilbert, the man who invented the elevated railroad and was at the head of the company that built the first road of that kind in New York; as a surgeon in the Duryea Zouaves he performed the first amputation under fire during the Civil War. Others of equal note could be mentioned here, but we will let these striking instances of great business ability in medical men answer for the many others who are no less noted in their respective stations.

And now, what more need I add? If I have at times painted the doctor in somewhat glowing colors, please be kind enough to remember that it is difficult to write an essay of this nature without allowing an added touch of coloring to occa-

sionally enter into the picture. My pride in the profession would stimulate my desire to bring out the best that the profession produced and to leave the worst to your own imagination. This is my only excuse. The remarkable group of medical men of fame in fields aside from their professional studies which I have collated will speak for itself. These men, I claim, were no less efficient as doctors because they had cultivated other of their brain-cells, than was Franklin the philosopher and scientist belittled by Franklin the statesman. Rather, as Weir Mitchell has remarked, is the doctor improved as a doctor by growing great in other lines as a means of mental diversion. And to them, as to all mankind, comes the injunction: "*Whatsoever* thy hands find to do, do it with thy might."

25 E. Washington Street.

A WHOLE CASE OF IT

"Hello! Mr. Brown says he can't come to the banquet tonight; he has a case of laryngitis."

"Oh, tell him to send it over and come along. We'll drink anything."—San Francisco Chronicle.

Society Proceedings

GREENE COUNTY.

The Greene County Medical Society met in Whitehall, Sept. 14, 1923, at the City Hall, and was called to order at 11:30 a. m. by Wm. D. McTunison. Letters were read by the secretary from Olive West, secretary of the A. M. A., in reference to resolution on the liquor question, and one from Dr. Edw. H. Ochsner, president of the State Medical Society.

Drs. A. R. Jarman of Whitehall and Nathaniel J. Bucklin of Roadhouse were elected to membership in the society. After an excellent dinner at Hotel Stocks, provided by the doctors of Whitehall, the society re-assembled at the City Hall and was called to order at 1:30 p. m. Dr. H. P. Beirne, councilor, of Quincy, delivered an address on the "Economic Side of the Practice of Medicine." This was a masterly address and was enjoyed by all present. Discussion followed by all. A motion prevailed that we as a society take part in the Baby Conference at our county fair for this year. An amendment to this motion prevailed, that our society do not approve of the policy of the state rendering free service except in communicable diseases.

The censors reported on Roadhouse for our next meeting. A very interesting, live meeting—one of our best.

Adjourned.

Thirteen members and three visitors were present.

W. KNOX, Sec.

Marriages

ALEXANDER HERBERT BARNETT to Miss Margaret Gertrude Severs, both of Chicago, August 22.

JOSEPH EDWARD LEO to Miss Lucille J. McGuinn, both of Chicago, September 1.

JULIUS G. LEVY to Miss Elizabeth Lashensky, both of Chicago, August 2.

ALEXIS T. TELFORD to Miss Ida E. Markman, both of Olney, Ill., June 30.

HARRY E. MIDDLETON to Miss Florence Rose, both of Alton, Ill., July 10.

Personals

Dr. Harry C. Campbell has been appointed city physician of Alton.

Dr. Frank L. Alloway, Champaign, has been appointed attendant specialist in eye, ear, nose and throat to the U. S. Veterans' Bureau, Champaign, to succeed Dr. Ralph W. Hulett who resigned on account of ill health.

The physicians of the Brokaw Hospital staff gave a dinner at the Bloomington Country Club in honor of Dr. Perry L. Noggle, who will move to Florida, and to Dr. Joseph Norman Elliott, who goes to the Ford Hospital, Detroit.

At the annual convention of the International Association of the Deaf, August 15-17, Arthur I. Roberts, Chicago, was elected president.

Dr. Isaac D. Rawlings, the state commissioner of health, has appointed the following physicians as district health superintendents: Christian H. Diehl, Effingham; A. J. Markley, Belvidere; Paul A. Slater, Hindsboro; Robert C. Bradley, Peoria; Charles S. Nelson, Springfield, and Henry Reis, Jr., Belleville.

Dr. Earl Miller has been appointed director of the Department of Experimental Medicine of Parke, Davis & Co., Detroit, to fill the vacancy following the death of Dr. Ezra Read Larned, who was the originator and organizer of this department and occupied the position as head of the department until his death. Dr. Miller was assistant to Dr. Larned for twelve years and has a wide acquaintance among medical men interested in clinical research work.

Dr. and Mrs. R. E. Miltonberger of Spring Valley have returned from a nine weeks' tour of the west.

News Notes

—The annual dinner of the Chicago Medical Society will be held, October 10.

—The Tri-City Sanatorium, Moline, of which Dr. Elmer F. Otis is superintendent, has been closed.

—Excavation work has been started for the \$125,000 nurses' home for the Washington Boulevard Hospital, Chicago.

—The Illinois Soldiers' and Sailors' Home and Hospital, Quincy, has been opened to World War veterans and their wives.

—A building to accommodate 150 patients and a home for nurses will be erected at the Methodist Hospital of Central Illinois, Peoria.

—The David Prince Sanitorium, Springfield, was recently damaged by fire to the extent of \$50,000. The institution will be rebuilt.

—The third annual meeting of the American Association of Oral and Plastic Surgeons will be held at the Congress Hotel, October 22-23, under the presidency of Dr. Truman W. Brophy, Chicago.

—Aurora business and professional men have assumed charge of a campaign to raise \$100,000 for a building fund for St. Charles City Hospital. It is to be used for a complete maternity hospital.

—According to an estimate of the U. S. Public Health Service, people in Illinois last year spent \$30,000,000 for "patent medicines." For state public health service they spent, it is said, less than \$500,000.

—The North Shore Branch of the Chicago Medical Society opened the season with a dinner, lecture and dance at the Sheridan Plaza Hotel, September 8. Following the dinner, Dr. Carl O. Schneider gave a travel talk.

—The state health department is investigating an epidemic of typhoid fever at Peoria, in co-operation with the local authorities. Physicians have reported sixteen cases. It is thought that contaminated milk is responsible for the outbreak.

—A special meeting of the council of the Chicago Medical Society was held, August 17, to discuss the venereal disease problem of Chicago. Drs. Charles M. McKenna, John S. Nagel, Malcolm L. Harris, Austin A. Hayden and Robert H. Herbst were appointed members of a committee to devise a plan for the consideration of the council at the meeting in October.

—The State Fair better babies conference, which opened September 15, had an entry registration of 1,455. This is more than 100 greater than last year, according to the state health department records. A staff of thirty physicians and dentists, twenty-five nurses and about fifty clerks and attendants was employed during the conference. Since its establishment eight years ago, the baby conference has grown from a registration of 250, and the conference movement has spread over the state. At practically every county fair of importance and at cities many better baby conferences are held on their own merits.

—At the official Illinois state educational exhibit in Exposition Park, Aurora, free medical examinations are made and advice given under the direction of the department of public health by Dr. A. J. Markley, Belvidere, and a staff of Aurora physicians. The department of public welfare is exhibiting a collection of work contributed by the men and women in the state institutions for the blind and insane. In connection with the department of social hygiene, there is an exhibit explaining educational methods of eradicating venereal disease; in the afternoon and evening moving pictures are used to show occupational therapy in state hospitals, and the proper care of babies in summer.

—A conference was held in the office of the director of public health, September 5, to promote a physical examination campaign in line with the National Health Council movement. Sixteen different organizations, including three of the state departments, were represented. An organization was formed with Dr. Isaac D. Rawlings, chairman; Mr. J. W. Becker of the Illinois Tuberculosis Association, secretary, and Mr. Walter Davidson of the American Red Cross, treasurer. A meeting of the board of directors and the finance committee will take place, October 24, when it is expected that the organization will be completed and plans outlined. The national movement has been limited to one year, but it is the purpose in Illinois to establish a permanent institution with the object of stimulating annual physical examinations as a routine matter.

—The Elizabeth McCormick Memorial foundation has offered to install health instruction and supervision in three Chicago schools. In the three schools it is planned to give children

intensive training in health methods, including dieting, proper exercise, correct care of their bodies, and personal hygiene. The children will be subjected to health and mental tests before the plan is put into operation, and at the end of a two year period they will again be examined to discover whether they have benefited.

The schools have not been decided upon, but it is planned to have each one in a different locality. Three other schools in the same neighborhoods will be observed and the results contrasted.

—Ten Elgin physicians have incorporated the Elgin Radium Association and purchased a supply of radium for the use of physicians in Elgin and vicinity.

—A large addition and a new nurses' home is planned for the Methodist Hospital, Peoria.

—The Illinois State Association of Graduate Nurses, Chicago, will erect a cottage for tuberculous patients at the Naperville (Ill.) Sanatorium.

—Nearly 1,500 babies were registered at the State Fair Babies' Conference, it was announced by the state health department, September 8.

—At a meeting of the school board of East St. Louis, September 11, \$5,000 was appropriated to the health supervising committee for attention to the school children of the city this year.

—The Vermillion County Medical Society went on record as opposing the establishment of a venereal disease clinic in Danville, at a meeting, September 4.

—It is planned to close the Detention Hospital, Mill Street, Rock Island, and to have St. Anthony's Hospital take care of patients having contagious disease.

—The board of trustees of the University of Chicago have recommended the establishment of a memorial at the university to the late Dean Rolin D. Salisbury.

—The Evangelical Deaconess Hospital will soon start a campaign for \$500,000 for a 150-bed hospital, research laboratory and dispensary on the north side. The hospital will be non-sectarian.

—The superintendent of the Spalding School, Chicago, which takes care of 400 crippled children, announced, September 18, that tuberculosis of the bone has greatly decreased in the school since 1918. Whereas five years ago 33 per cent. of the pupils in the school had bone tuberculosis, now only 18 per cent. are so affected.

—The Moline physicians exchange since its organization two years ago has located 6,000 physicians for clients who needed their services. It is not only invaluable for local residents but fills the need of tourists and others who are not acquainted with the local physicians.

Deaths

ISAAC FRIEDMAN, Chicago; Bennett Medical College; Chicago, 1895; member of the Illinois State Medical Society; aged 65; died, August 20.

JAMES FERLANDO GRAHAM, Chicago; Medical Department of the University of the City of New York; member of the Illinois State Medical Society; Civil War veteran; aged 75; died, September 14, of arteriosclerosis and interstitial nephritis.

SETH SCOTT BISHOP, Evanston, Ill.; Chicago Medical College, 1876; died suddenly, September 6, of heart disease; Dr. Bishop was formerly professor of otology, rhinology and laryngology at Loyola University School of Medicine, and the Post-Graduate Medical School, Chicago, and on the staffs of the Illinois Charitable Eye and Ear Infirmary, the Post-Graduate Hospital and Medical School, the Mary Thompson and Jefferson Park Hospitals, Chicago, the Silver Cross Hospital, Joliet, and the Illinois Masonic Orphans' Home, La Grange. He was author of "Diseases of the Nose, Throat and Ear" and "The Ear and Its Diseases."

FREDERICK W. KOHLHAMER, Chicago; Missouri Medical College, St. Louis, 1890; aged 56; died, August 31, at La Mesa, Calif.

WILLIAM RUSSELL MCINTYRE, Troy Grove, Ill.; University of Illinois College of Medicine, Chicago, 1909; aged 45; died, August 12.

CHARLES FREDERICK MILLSPAUGH, Chicago, died, September 15, at the Presbyterian Hospital, of pneumonia. Born at Ithaca, N. Y., June 20, 1854, Dr. Millspaugh graduated from the New York Homeopathic Medical College, New York, 1881, and practiced medicine in his native state for ten years. He was botanist at the University of West Virginia from 1891 to 1893, and curator of the department of botany at the Field Museum of Natural History, Chicago, from 1894 until the time of his death. He was professorial lecturer in economic botany, University of Chicago, since 1895. Mr. Millspaugh explored in Mexico, Brazil, the West Indies and the Bahama Islands. He was author of "American Medical Plants" and many other works.

CHARLES WESLEY TURNER, Harrisburg, Ill.; St. Louis College of Physicians and Surgeons, 1898; a Fellow, A. M. A.; formerly mayor of the city; aged 52; died suddenly, August 19, of heart disease.

JOHN EDDY HASKELL, Chicago; College of Physicians and Surgeons, Chicago, 1903; formerly instructor in materia medica at the University of Illinois College of Medicine; aged 48; died, September 16, of cerebral hemorrhage.

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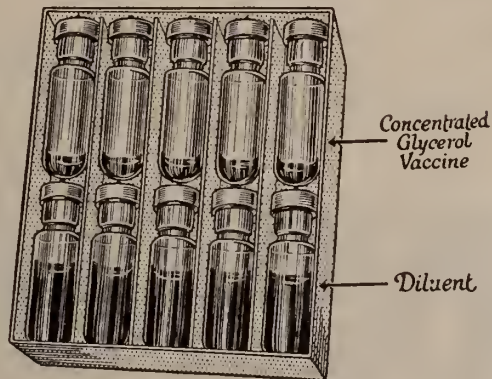
It is supplied undiluted; each vial of vaccine, preserved in glycerol, contains an accurately measured dose and is accompanied by a vial of diluent. The dilution is made by transferring (with a sterile syringe) the diluent to the vial containing the vaccine. The physician makes the dilution at the moment of making the injection.

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Entered as Second-Class Matter July 21, 1919, at the Post Office, Oak Park, Illinois, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized July 15, 1918.

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ILLINOIS MEDICAL JOURNAL

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Editorial

EDUCATIONAL PUBLICITY.

With the announcement that the Lay Educational Committee has made arrangements for inaugurating our state-wide campaign of educational publicity, it is fitting at this time to explain briefly just what the program contemplates and what topics have been suggested as possible lines of attack. More than likely there are many physicians who need a little education themselves—an education which will open their eyes to the fact that the practice of medicine is drifting out of their hands into questionable harbors with a speed and completeness that is deplorable.

Outlined briefly, the following topics are a few of those now under consideration as possible subjects for publicity.

The importance of periodical professional examinations of apparently well persons as a means to maintain health and prolong life.

The necessity of early diagnosis and early treatment of disease.

The value of medical science to the individual and the community.

The evils of self-prescribing.

What medicine is doing to prevent disease.

What immunization is doing in the prevention of disease: i. e., typhoid fever, diphtheria, etc.

What surgery is doing in the conservation of life.

What surgery is able to do in reconstructing destroyed tissue.

Many other features of modern surgical and medical practice as may develop from the above.

The following has been tentatively outlined by the committee as its work for the first year:

Classification and centralization of the resources of the society with reference to publicity.

Establishment of general publicity media for news and feature material.

Enlistment of the active co-operation of county societies in order to make the campaign the af-

fair of every doctor rather than of a committee.

To accomplish these things the committee has appointed a trained publicity director, who will have charge of the detail connected with the preparation of news material and its distribution. Work will begin immediately and the co-operation of all Illinois physicians is sought in order that the campaign may be carried to a successful conclusion.

A POWER FOR CIVIC BETTERMENT.

Doctors, dentists and druggists organized for civic betterment are a force to be reckoned with. During the last year such an association was formed in Cook county. Results accomplished at the last session of the state legislature prove the effective possibilities of this organization. Incisive, cohesive labor from the three great allies will eventuate into a splendid power for civic betterment. Nurses, undertakers and all analogous agencies having to do with health matters have evidenced desire to be allied with this body.

This gives an organization of upwards of thirty thousand individual centers of distributive influence. These professions working cohesively make the greatest factor for good in the country. No legislation inimical to the best interests of the public and the professions named can be placed on the statute books with this organization working coherently. Not a home in the State or Nation that is not reached by some doctor during the course of the year; perhaps not an individual in the State or Nation who is not met face to face and engaged in personal conversation by one of the professions named in the course of a year.

What a power this is of the doctors, dentists and druggists of the state and county in combating socialization schemes now so prevalent in this country.

This organization in full swing can sway public issues, public men and public elections, as was well illustrated a few years ago in New York City. There the doctors unaided by a personal campaign among their patients defeated each and every candidate for the state legislature who had voted for Compulsory Health Insurance at the previous session. How much more effective this influence will be when augmented by the other allied professions.

START LAY PUBLICITY CAMPAIGN.

Announcement is made by the Lay Educational Committee that arrangements have been completed for immediate inauguration of the Illinois State Medical Society's state-wide program of educational publicity, by means of which it is aimed to bring before the public in an interesting and non-technical manner the activities and progress of medical science and the profession.

The committee delegated by the State Society has appointed a lay representative, who will proceed under the direction of the committee, and as an initial step in the organization of this new department the committee is asking that all members of the State Society submit at their earliest convenience an answer to the following question:

"What phases of professional activities and scientific background will it be advisable to emphasize in this publicity, and what phases do you deem it advisable to avoid?"

Suggestions which are concrete and definite will be the most useful. It is aimed to get all possible viewpoints at the outset in order that a definite working policy may be drawn up and followed thereafter.

Immediate attention to this matter is requested by the committee. Communications should be addressed to Bureau of Publicity, the Illinois State Medical Society, 25 East Washington St., Room 1522, Chicago.

BIRTH CONTROL PROPAGANDA

Dr. O. Paul Humpstone of Brooklyn, New York, in the *American Journal of Obstetrics and Gynecology*, says:

Theodore Roosevelt once said: "The greatest of all curses is the curse of sterility, and the severest of all condemnations should be that visited upon wilful sterility. The first essential in any civilization is that the man and the woman shall be the father and the mother of healthy children, so that the race shall increase and not decrease."

Now come the Neomalthusians claiming that "if only the devastating torrent of children could be arrested for a few years it would bring untold relief." Overpopulation, they say, is the source of all social evil. Sutherland, an English physician, has well pointed out that their scheme is utterly unsafe, "since they argue from false premises to false deductions." "The overpopu-

lation scare is a myth. Indeed the end of the world, a philosophic and scientific certitude, is more imminent than its overpopulation." A living and a useful activity can be found for all the healthy sons and daughters that can be born.

Another group has the vision of a superrace of men developed by arbitrary control of the sexual relations of human beings, on the scientific basis of a stock breeder's knowledge of the effects of sexual excess, heredity, polygamy, and polyandry. This argument is too materialistic for any one to accept, who has any faith in the spiritual side of human life, with its social stigmata, its religious beliefs, and its natural laws.

However the birth rate is falling in this country among the native population at least, and this is doubtless due in part to birth control, under the motive of economy. There has developed a high standard of comfort, an intensely individualistic outlook on life among men, and an emancipation and intellectual development among the women, with a refusal to accept motherhood, to the extent that in the New England States and New York, at least, the native population is not reproducing itself. The native rural population in New York is just about breaking even between births and deaths, while the foreign population is practically everywhere showing a higher degree of fecundity. Are these facts a menace to our civilization? I think not. The "melting pot" is evolving a new type of American under natural laws which will continue functioning long after birth control propaganda is forgotten.

The question of greatest interest to us in this connection is whether the results will be an amalgamation or an explosion. I will not be influenced by the present fear and pessimism.

I have the faith of Raymond Pearl: "that the kind of people who will survive and run the affairs of this country, say a couple of centuries hence, when the population pressure will be intense, will not be Englishmen, or Slavs, or Jews, or Italians, but Americans, of that type which has shown the greatest adaptability to the problems which life in this part of North America has presented."

So much for the philosophical side of the question.

What can be said of the practical medical

aspect of contraception? It is true that no statistical study has been made of this subject but numbers are not necessary to prove some things, and no subject lends itself less to statistical accuracy.

Every day experience of each of us will bear witness to the following facts:

1. Under legal right we now teach contraception in the presence of conditions which demand its use to conserve life,—we need no further legal liberty in this matter.

2. We are amazed at the widespread knowledge by the women of contraceptive methods. The poorest and most ignorant women have a working knowledge of contraception just as good as the most intelligent.

3. We know the fallibility of all known methods of contraceptive effort and the very real danger to health, happiness, and even life itself that can arise from many of the procedures employed.

4. We know that permanent sterility many times follows the infection caused by the use of many of the contraceptive contrivances.

5. I believe that the known failure, at times, of all contraceptive means leads to increase of criminal abortion. Contraceptives are not a panacea for criminal abortion.

6. I believe that the source of contraceptive information should be the physicians only, the most of whom fully realize the moral and social responsibilities which they have.

7. I believe that a propaganda for birth control as at present proposed will not survive, and am unalterably opposed to it as a physician.

ADAMS COUNTY CONDEMNS STATE AND FEDERAL ACTIVITIES IN THE FIELD OF MEDICINE

The following resolution was unanimously adopted at the October meeting of the Adams County Medical Society:

"The Adams County (Illinois) Medical Association at its October meeting, unanimously adopted a resolution condemning state and federal activities in the field of medicine; except in the control of communicable diseases."

COOK COUNTY BOARD ABOLISHES ISSUING CLINIC TICKETS TO THE CULTS

THE CHICAGO MEDICAL SOCIETY APPOINTED A COMMITTEE to interview the members of the Cook County Board and ask that the custom now in vogue of permitting cults to buy tickets admitting them to the clinical services of the County Hospital. As per instructions of the council the committee appeared before the Public Service Committee; there were fifteen commissioners present, including Chairman Busse and President of the Board Cermak. The committee was received cordially and after hearing the facts in the case President Cermak offered a motion that the practice be abolished. The motion was passed unanimously.

PHILANTHROPY AND THE MEDICAL PROFESSION.

The following excerpts from an address given recently before the Physicians' Fellowship Club of Chicago, by Dr. Katharine B. Rich, bear so pertinently upon the growing agitation regarding medical practice and pseudo-philanthropy, that we believe they are worthy of the serious consideration of all the members of our profession.

We quote Dr. Rich as follows:

"First, I wish to present to you for your consideration and discussion, a plan for the care of the under-nourished children of the public schools of Chicago.

"Second, if the plan appeals to you, an unusually progressive group of physicians, your endorsement of the plan will be of the greatest help and influence in establishing it.

"There is a constantly growing opinion that, as a profession, some definite stand should be taken by us against the increasing number of encroachments upon our rightful province and liberty of action as physicians.

"By some such action, the profession itself would, without question, be benefited, as would also the general public.

"True philanthropy helps others to help themselves; hysterical philanthropy injures at every turn. Through hysterical philanthropy, the physician is curtailed in his usefulness in the community in which he lives, in the size of his

practice and, consequently, in the ability to discharge his just obligations to himself and to those dependent upon him. Again, through hysterical philanthropy, a large number of people amply able to pay at least something for medical care, are pauperized and taught to accept charity when instead a sturdy regard for financial independence should be fostered in them.

"It is not impossible that we, ourselves, as physicians, are primarily to blame. With this you may not agree, but turn back to the days when the family physician was looked up to by his patients as a healer of their physical ills and was also the family counselor, adviser and intimate friend. His families remained his to care for as long as he practiced medicine, but in such a diversified capacity, the inevitable result was for him to give over much time for comparatively small financial remuneration.

"That day has passed, except in a comparatively small degree. Nowadays, it is a business proposition and patients pass from one physician to another with little individual loyalty, carried by a passing fancy or fad. Yet, we, as physicians, have pursued much the same course and still go on giving charity indiscriminately in private cases, clinics, dispensaries and hospitals.

"Every now and then, a report is issued from some one organization or another, giving the large number of charity cases that have been treated by its medical staff within a given time, and stating what aggregate sum in dollars and cents, if thus computed, would represent the services of the physicians.

"How many of those charity cases, if properly investigated, could have paid for their medical care? Quite a generous proportion. Yet in thus donating our medical care we continue to injure both ourselves and the patients.

"The following plan for the undernourished children in the public schools is based on four postulates:—

"First, that the public schools are maintained for education and not for either medical practice or research.

"Second, under-nourished is definitely a medical problem and should be handled by physicians.

"Third, any plan that would benefit all children, needing such care, if the plan is only 50 per cent. efficient, is fairer to the children and to the parents paying school tax than one pos-

sibly 100 per cent. efficient that would benefit only one-tenth of one per cent. of all children needing such care.

"Fourth, simple, sane, practical health instruction should be given to all children in the public schools.

"Nutritional classes in some of the public schools of Chicago have been held. I was fortunate in being permitted to carry on a few of these classes myself. I say, fortunate, because it gave me an opportunity to see the glaring faults of such a system. Our results were good—yes, as far as they went. But they reached only a comparatively few of those needing such care and it was far too expensive to make it possible to place it in the four hundred or so public schools of Chicago.

"Then, the psychology of the plan was wrong in emphasizing the physical weakness of the children in such nutritional classes. It placed them at a disadvantage as far as their own mental attitude was concerned and with their classmates, making them objects of curiosity and sometimes derision. It also interfered materially with their class-room work and discipline. It confused the routine of the school room, thus being unfair to other pupils, and complicated the duties of the already overburdened teachers. Besides all that, it was a medical proposition which did not belong there. And, furthermore, as I have said, it was not a fair proposition to the under-nourished children of other schools.

"The Superintendent of Schools assured me that the teachers are given necessary instruction for their health talks to their pupils. I did not find it so. The principal of a large school, only a week or so ago, was discussing this problem in her school with me and asked me if there was not some simple practical outline for such instructions that she could hand to each of her teachers. As far as I know, there is no such outline at the present time.

"I found, two years ago, that the school physicians were each given an almost impossible number of children to inspect and care for and that they could only give a superficial examination at that. I also found that while a certain number of the parents would follow the advice of the school physician in regard to the correction of defects, that his suggestions were not always taken seriously and that a large number paid no attention to such directions until I said that I

was in the employ of the Board of Education. Then action was taken in the majority of cases.

"If the Board of Education and the Health Department would co-operate, much more could be accomplished than by either one alone.

"And now for the plan, as follows: That the Board of Education should employ a director of nutritional work, a physician with the necessary number of lay-assistants.

"The medical supervisor of the school physicians should instruct them in their inspections to refer any child that seemed below par physically or who lagged in his school work, to the director.

"The assistant, with the co-operation of the school nurses, should then investigate the case to see if the family had a private physician. If so, the director would telephone the family physician, refer the case with explanations back to him, after notifying the family to that effect, and then hold that physician responsible for determining the degree and the cause of the under-nourishment; also leaving its correction in his hands.

"If there was no family physician and the family were able to pay for medical services, to refer that case to the physician nearest the family residence and follow the same procedure as with the family physician. If the case was definitely a charity case, the director would refer the child to the Pediatric Clinic nearest to the child's home and keep in touch with the physician holding such clinic. This procedure would place all the responsibility in the hands of the medical profession, where it should be. It would also emphasize to the physicians the greater need for study of the direct or indirect causes of under-nourishment, a condition that is not generally regarded as seriously as it should be. The mere correction of home surroundings, diet and physical defects, are not enough in a large number of cases—the cause of the condition being more deep-seated.

"You will see from this explanation that no one but the director, also a member of the medical profession, would be in touch with the physicians regarding the referred cases.

"Definite, simple, comprehensive health outlines should be given to the teachers by the director, to be transmitted by them to the pupils as part of their routine school work. A monthly weighing of all pupils in each room would give the information as to general improvement, men-

tally and physically, would be of value as health education and would assist in identifying some cases requiring attention that might slip by the school physician unnoticed.

"The plan is simple, direct and just to all. It was presented with a diagram to each member of the Board of Education.

"It is quite likely that many of our medical men would be, perhaps, unwilling to co-operate. It might take several years to get them all in line, but there has to be a beginning for everything and this seems to be the psychological moment to begin.

"If any physicians declined to co-operate in a plan so obviously for their own benefit, as well as for the benefit of their patients, it would be interesting to have it proved positively from such a concrete example as this would make.

"It is far more probable, however, and is my own personal belief, that the number of physicians willing to assume such responsibilities would increase from month to month.

"With a sympathetic co-operation between the Board of Education and the officers of the Health Department, there seems no valid reason why such a plan could not be established and carried out to a conclusion mutually beneficial to the under-nourished children, the general public and to the medical profession. A fair, just, far-reaching plan which utilized the forces already employed in the Health Department, would be the stepping-stone to other wholesome adjustments and a progressive action to the credit both of Chicago and the members of the medical profession. With the initiation and with the request of the Board of Education, it brings to the attention of the family the condition of the child and the immediate necessity for medical care from the family physician or some other of the medical profession."

PUBLICITY FOR PROFESSIONAL MEN

R. H. Wilder and K. L. Buell in their book, "Publicity," say:

Lawyers, physicians, and other professional men are barred by the rules of their profession from seeking personal publicity, although some of them do obtain such publicity by writing widely read books. This is the only form of publicity in which they are allowed to indulge without losing caste. The same criticism applies to the modesty of professional men that has been mentioned in regard to business organizers. Such men are so afraid that any statements they may make or any movements in which

they may take part may be construed as personal publicity, that the professions themselves are not sufficiently advertised. The growth of pseudo-schools of medicine and the success of quack doctors is a case in point. It shows up the shortcomings of the medical profession in the publicity field. People do not go to such so-called doctors because they prefer them, but because they have heard of them.

There seems to be a tendency, however, to use publicity to promote such men in groups. The necessity for raising money for public institutions has forced colleges and hospitals into the publicity field. This necessity involves a public recognition of the work of individual members of the staff. It is a hopeful and interesting sign of the growth of the publicity idea in modern life that such campaigns can be held at all.

Many groups of professional men feel that more adequate methods of reaching the public must be evolved if scientific thought is to reach any large part of the population. In many cases even among intelligent people, the only scientific training received is the elementary work done in the schools. After the individual reaches maturity his ideas of progress of science are founded quite as much upon inaccurate and carelessly written journalistic accounts as upon the actual findings of scientific bodies. Organizations such as medical associations, some of the large museums, and various organizations of scholars and teachers in economics are beginning to realize that, if the best thought on such subjects is to reach the people, there must be an attempt made to popularize sound thinking through adequate publicity methods.

THE BRITISH DOCTOR'S STRIKE

A physicians' strike is a new thing, but Great Britain will have one the first of next year, unless the national genius for compromise finds a way out of the tangle caused by one of Lloyd George's socialistic policies.

Under a "health insurance" law passed in 1911, workmen's societies pay a certain sum per year for each member to secure medical services.

Under a "health insurance" law first passed in 1911, but modified since the war, every member of approved workmen's societies is guaranteed medical services during the year for a fixed fee. The society pays 7 shillings and 3 pence; the medical fee is 9 shillings and 6 pence. The government makes up the difference, and that difference in 1921 is said to have reached the sum of £26,000,000—at normal exchange more than \$125,000,000. This is not much less than the cost of civil war pensions to the United States.

The present government of Britain proposes to reduce expenses by cutting the fee to 8 shillings and 6 pence, and letting the workmen's societies pay it all. The societies object to the added cost, and the physicians refuse to accept the cut. They do not like the system, anyway, and if fees are

lessened, vow they will have nothing more to do with it.

Thus does one more scheme to substitute government action for private responsibility go on the rocks.—Chicago Daily Journal.

WHY VIRGINIA REARED ONLY ONE PATRICK HENRY

"Patrick Henry could not have helped being an orator, with such inspiring scenery around him all the days of his life!" So exclaimed an enthusiastic tourist in the mountains of Virginia. "This scenery has been here a long time," replied a native, "but there never was but one Patrick Henry" (and he might have added that that one did not live near the mountains). Opportunities are abundant on every hand but only a few fully avail themselves of them. The others say that the few were "lucky." They were; they were lucky enough to have prepared themselves or to have been prepared by nature to recognize and grasp the big opportunity when it appeared.

LIVED FIVE HOURS AFTER BREATHING CEASED

An extraordinary case of a man whose heart went on beating for five hours after he had ceased to breathe, says the editor of the *Critic & Guide* (June, 1923), was reported in a recent issue of the Manchester (England) *Guardian*.

The case was that of Norman Lees, a young clerk, who was admitted to the Manchester Royal Infirmary on November 30, last, suffering from a cerebral abscess.

He had been in the institution for several months when one day the nurse noted a considerable change in his condition. He collapsed and his breathing had apparently stopped, but his heart was still beating. The doctor in charge came at once in answer to her summons and artificial respiration was resorted to. After some minutes' work, breathing was again audible and continued for a little time after the artificial efforts had ceased. Breathing then ceased again and artificial respiration, oxygen, drugs and other methods were tried, with the result that breathing again started and continued for a few minutes. A third attempt brought less results and the breathing finally ceased at 5 o'clock. For four hours afterwards two doctors, three or four nurses and one of the attendants went on with the work of trying to restore the breathing, but failed to obtain any signs of life beyond the faint beating of the pulse and the heart.

The pulse first ceased to beat. About half-past 8 the heart-beats became gradually more and more indistinct and they finally ceased at 9 o'clock.

The Manchester medical authorities believe the case is unprecedented in the annals of medical science. There have been instances in cases of cerebral disease where the action of the heart has continued for some

minutes after the breathing has stopped, but they claim that there have been no authenticated instances in recent years where the heart has continued to beat for nearly five hours.

DOCTORS VERSUS BRICKLAYERS

Some bricklayers were fined in New York town this week for working on Sunday. The fine was \$5 each, and they laughed as they paid over the bills. They were getting \$36 per day for Sunday work, and could well afford a paltry \$5 fine.

Bricklaying is one of the most craftsmanlike of manual trades. It requires a considerable apprenticeship to learn, and a goodly measure of skill to practice in satisfactory fashion. But no bricklayer would say for a moment that his trade is as difficult to learn or practice as that of the doctor, the dentist, the expert chemist, or the civil, electrical or mining engineer.

Each of those professions must be learned by a costly and unproductive period of years in school while the bricklayer is earning wages, and the professional man must practice for years before he can hope for an income that even approximates \$36 per day. Most professional men, no matter how high their education, never reach that income.

Civilization depends for its very existence on some of the learned professions. When a trade that can be learned in three years by a boy with a grade education pays more money than a profession that requires four years of technical training for a man with a college education, how will society induce youngsters to take up the more difficult craft?—Chicago Daily Journal.

THE PORK BARREL IN THE OFFING

"In the State of New York," points out the *Columbus Dispatch* editorially, "it has been proposed to subsidize physicians in rural communities where modern conditions are alleged to have left the people without adequate medical aid. A committee of five physicians appointed to investigate and report on the situation has reported to Governor Smith that matters are not nearly so bad as a superficial consideration would suggest.

"In districts where a less number of physicians are now in practice, it is found that in many cases there has been a decrease in population also, so that the numerical ratio has not been seriously altered. Still further, the prevalence of disease is less than in former times, and with the aid of the automobile and improved roads, the physician can care for a larger number of patients than before.

"The committee therefore advises against any subsidy plan as unnecessary, and alleges that in Pennsylvania, where such a system has been tried, it has failed to do any good from the medical point of view, and the distribution of the subsidy has degenerated into a matter of 'pork barrel' politics."—From Report of Committee on Medical Economics, *Ohio State Medical Journal*, May, 1923.

Correspondence

CHRISTIAN SCIENCE

Chicago, Ill.

I am preparing a contribution, in book form, to a showing on Christian Science, dealing with the subject from the medical point of view.

Every physician has knowledge of cases wherein favorable results could reasonably have been expected to follow the timely use of proper medical or surgical treatment, but which, through reliance on Christian Science, resulted in serious injury to the patient.

The "story" of such cases, told by representative physicians in language that will be fully understood by lay readers, will appear in the forthcoming volume.

I shall be under great obligation to any members of the medical profession who will favor me with assistance in the matter.

There will be no undesirable publicity, as no names will be published. Your communication, doctor, will be held strictly confidential.

With appreciation of the favor I am asking,

I am cordially yours,

CHAS. E. HUMISTON, M. D.

449 N. Central Ave.

THE LAY EDUCATIONAL FUND.

To the Editor:

It may be heresy to venture a criticism on the proposed "newspaper educational campaign in the press of Illinois." But the following suggestions are based on the belief that, even in this period of unprecedented advertising, there is a border line where publicity becomes clever commercial advertising. And any profession is stronger for playing safe.

The two-fold objective of this fund, as again presented in the October JOURNAL (page 244), is "restoration of the medical profession to its merited place in the public sympathy and confidence" and "benefits to humanity." Now the intelligent public is primarily concerned with "benefits to humanity," rather than the professional rating of any group. Also, the caustic criticisms of the medical profession have been incurred by the unworthy members who by virtue of political or other influence have escaped censure of their fellows. Therefore, it might be

worth while to transfer the order of these two objectives.

Then, is the newspaper the best medium for this form of propaganda? The newspaper is primarily for news. And news for publication must be rather startling as well as *new*. There is some peril of imitating commercial advertising methods in the proposed "restoration . . . to confidence."

The ILLINOIS MEDICAL JOURNAL carries every month some notably good article which hundreds of the laity would read if properly presented. Every publication has the privilege of sending out a generous number of "marked" copies; or, reprints could be made and sent to a selected list of names. If every reader of the JOURNAL would send each month to the editor a list of three patrons interested in "prevention of disease and preservation of life" and designate the article preferred, the office of the JOURNAL would soon have a selected list of intelligent laymen who are leaders. And it is the leaders who make history.

For instance, in reviewing the past three issues of the JOURNAL, every member of the Board of Education, every school principal, and perhaps a third of the intelligent parents would read with eagerness Dr. Whalen's splendid editorial in the August JOURNAL on "Health Work in Public Schools." From the September JOURNAL, Dr. Pollock's paper on "The Present Situation Relative to the Care and Treatment of Nervous and Mental Diseases in Illinois" would undoubtedly add to the active membership of the Illinois Society of Mental Hygiene, if wisely distributed to the legal profession, to the ministers of Illinois, to social workers, supervisors of labor in certain large mercantile concerns, and to philanthropy department leaders in large clubs both of men and women. From the October issue, I would suggest that vivid story, told by Dr. I. C. Smith, "Reminiscences of Forty Years of Medical Practice in Jo Daviess County, Illinois," which merits a place beside Barrie's famous story. If Dr. Smith's definition of the successful man could be maintained throughout the profession, "restoration to public confidence" would be achieved.

The laity is keen for scientific knowledge presented with clarity, with brevity and with authority. It may be that the *way by which* is not fully solved.

H. M. S.

DEPRIVING THOSE WHO RECEIVE PUBLIC SUPPORT OF THE RIGHT TO VOTE.

October 25, 1923

To the Editor:

The other day I went through the ILLINOIS MEDICAL JOURNAL, as I try to do every month, although. God knows, I get little enough time to read journals. I was particularly interested in your editorials, written in their usual trenchant style. There was one in which you discussed the topic of federal aid, which is used just now as such an attractive and (to the blind) tempting bait. How it is possible for people to fail to see the pernicious nature of this whole system is beyond my conception. However, what I was coming to is this: Unless I am much mistaken, in some European countries, those who receive public support, at least the paupers, are deprived of their citizens' rights for the time being, namely, the right to vote, to serve on the jury, to hold office, even the lowliest, etc. I do not know whether the same is anywhere in force in this country. I have an idea that only convicts serving sentences in penitentiaries lose their citizens' rights. Now, if similar provisions were to be made affecting those who are to be "benefited" by the provisions of the Shepperd-Towner Act and of similar abortions of legislative activity, the desirability of "federal aid" and of all that goes with it would very soon be seen in a less tempting light. I have an idea that the voters would promptly instruct their representatives to can such vicious and monstrous acts and to adhere to common-sense ideas in the making of laws.

Very sincerely yours,

H. J. ACHARD, M. D.,
Managing Editor.

American Journal of Clinical Medicine.

REPORT ON HABIT-FORMING DRUGS.

Washington, D. C., June 12, 1923.

To the Editor:—Have just returned from Europe and found added requests for copies on Porter resolution, prepared last March for the B. P. O. Elks.

Because of the way which "international" issues and propaganda are now being raised and spread both in this country and in Europe, it occurs to me that the material in this report should be of even greater interest and importance in the possession of medical leaders.

The international regulating matter is not a new phase of this subject. I believe it was raised after the Whitney investigation. It may be used as a smoke-screen.

Very truly yours,

LESTER D. VOLK.

The following is the report:

REPORT TO B. P. O. ELKS

In re matter of so-called "habit-forming" drugs, with a special reference to Congressional H. J. Resolution No. 453, known as the Porter Resolution.

To Joseph H. Becker, Secretary,
Brooklyn Lodge No. 22, B. E. O. Elks,
144-150 South Oxford Street,
Brooklyn, N. Y.

Dear Sir and Brother:

In reference to the matter of resolutions to be adopted by our Lodge concerning Congressional H. J. Resolution No. 453, passed by the House of Representatives on February 26, and known as the Porter Resolution—referred to me for consideration—I beg to report as follows:

The *principle* proclaimed as forming the basis for the Porter Resolution is the limiting of the amount of production of the drugs in question "to the amounts needed for medicinal and scientific purposes."

If the Porter Resolution went no further than to enunciate this *principle* there would be no possible danger nor objection to its unqualified approval and endorsement.

It, however, includes several statements which are not supported by consensus of informed medical and other scientific opinion nor by the preponderance of reliable survey of record and literature and investigation. Also examination of the testimony of the hearings of this resolution show them to have been authoritatively called into question (if not indeed conclusively disproven) by the most reliable testimony produced at the Porter Resolution *hearings themselves*.

An example of this occurs in the estimate of amounts necessary appearing in the preamble to the Porter Resolution.

Apparently in support of such estimate an article written by a doctor, Alexander Lambert, was introduced in evidence and no other sources of estimate were given by name. There is a vague reference to "best available information" which is, however, not specified otherwise than the introduction of the opinion of Dr. Alexander Lambert, the reliability of whose estimates in the article mentioned has been criticized in medical print and elsewhere.

Furthermore, the estimate given in the Porter Resolution was called into question by witnesses of unquestioned experience and disinterestedness. Also the testimony of all reliable witnesses at these hearings shows that it is *utterly absurd to attempt any estimate of amounts needed for "medicinal and scientific purposes" without full and open investigation of the entire subject*.

The testimony of Assistant Attorney General Crim at the Porter hearing and elsewhere—the testimony of all disinterested and scientific witnesses at the Porter hearing—the great quantity of record, investigation, report, scientific literature, experience, etc., show that *before there has been a full and careful investigation and a complete study and collaboration of ALL available information—nobody is justified in hazarding even a guess as to the amounts requested for the purposes of legitimate medical and scientific use.*

On page 114 of the official revised print of the hearings on the Porter Resolution, *Congressman Porter practically admits this in the following words—“The resolution aims to establish the principle first,”* and *“the production should be limited to the amount needed for medicinal and scientific purposes and after the principle is established, then it becomes a matter of determining how much is needed for these purposes.”* In view of the facts and evidence, it is difficult to conceive any reason for the inclusion of such estimates and guesses in a resolution *purporting to establish a principle—especially after the above admissions of Mr. Porter himself.*

In view of the fact that for the past four years especially this matter of narcotics has been particularly infested with special interests or partisan or political promotion and propaganda and sensationalism, I believe that all disinterested authorities and workers in this subject regret that in resolutions purporting to establish a *principle*, estimates of amounts were introduced, against which estimates the most authoritative witnesses at the hearings warned as being untenable and, the dangerous results of erroneous estimation clearly shown.

In addition to incompetent or premature estimation having serious effect in the causation of misery and increase of evils within this country it must be borne in mind that it also involves the impugning of the honor and motives of friendly foreign nations, through declarations not as yet proven to be reliable or true.

This question was raised several times at the hearings on the Porter Resolution as to what might be the effect of untenable or insufficiently established statements in connection with relations involving or impugning, directly or by inference, the motives or blame of friendly foreign nations for conditions which have been developed within our own borders.

It was asked at the Porter Resolution hearings if these resolutions, as worded, might not be regarded or interpreted by Great Britain and other friendly foreign powers, as *“an unfriendly act.”*

In addition to this danger on the basis of incompetent estimate occurs in Section 2 of the Resolutions themselves what might be easily interpreted as another statement unwarranted by facts an impugning to overproduction in foreign countries the blame for the existing Narcotic Drug Situation and conditions here, which reliable history and preponderance of medical and other informed opinion shows *are the direct result of forces and influences arising and functioning within this country itself.*

“Section 2,” above referred to, reads as follows:

“That the effective control of these drugs can be obtained *only* by limiting the production thereof to the quantity required for strictly medicinal and scientific purposes, thus eradicating the source or root of the present conditions, which are *solely* due to production many times greater than is necessary for such purposes.”

In view of the preponderating material and information of record as well as the testimony of greatest reliability, disinterested experience and competency at the hearings of the Porter Resolution themselves, this statement is unwarranted.

It could be interpreted to mean that having failed to control a situation in our own borders by the administrative methods employed in the last three or four years, we are now endeavoring to fix the blame for our failure upon friendly foreign powers.

The record of the testimony given at the hearings upon the Porter Resolution clearly indicate that international regulation and limitation of production are only incidental among various other considerations of more urgent and practical importance.

For instance, Assistant Attorney General Crim stated (page 54, revised print of the hearings) that the data upon which narcotic laws have been recently interpreted and administered *“is data that may be found later to be wrong theory”* and as he stated further that the basic problems of narcotic addiction instead of being regulatory and penological, were pathological and medical, and that recent administration and interpretation of existing narcotic laws had driven the medical profession away from attention to or care of the addicted, thereby driving the narcotic afflicted into the hands of the underworld peddler and into criminality and at times into the exploitation of the corrupt administrative official.

This together with the testimony of the other witnesses of any reliability at the Porter Resolutions Hearings corroborates the statements in House Resolution No. 258, introduced by me in the House of Representatives January 13, 1922, and elaborated upon in a speech of this date, and in Extension of Remarks, July 18, 1922. (See Congressional Record.)

I am appending herewith reprints of these speeches and Congressional House Resolution No. 258—*(now endorsed in open convention by the leading scientific bodies of national and other importance—including the American Medical Association).*

I mention them and their endorsement in this place simply because of the importance of the considerations and facts stated in my resolutions and a speeches *as being the fundamental causative factors of existing narcotic conditions in this country—and because these considerations are entirely overlooked in the drafting and presenting to Congress of the Porter Resolution itself—although some of them were convincingly presented in the course of the hearings on the Porter Resolution.*

I mention them also, simply because their spontaneous and practically universal endorsement shows how widely known and recognized are the facts and conditions therein presented—and because in preparing them

I simply reaffirmed and condensed material and record and history and opinion expressed in a preponderating amount of easily available and often repeated history and investigation and experience accumulating during the years of development of the present narcotic situation and existing conditions in this country.

Obviously the sponsors and drafters and proponents of the Porter Resolution overlooked or ignored the record and experience and the knowledge and information of most reliable authority and scientific corroboration.

Obviously, also, an analysis of the record points to an almost utter lack of any consultation on their part with the most prominent authorities and people of widest recognized personal experience and study and standing.

In fact, there is apparent in the testimony of the hearings, and the publicity preceding them, a tendency towards direction of emphasis upon sensational incidents or end results of the type which have developed particularly in the past three or four years, and a deplorable ignorance of information and facts well recognized among real students and in the literature of this subject.

Although a small part of this information appears on the record of the hearings—it was omitted in Mr. Porter's presentation of the Resolution in Congress, as it appears in the Congressional Record.

Unfortunately this Resolution was brought out for passage unexpectedly and without notice and through a "Suspension of the Rules," so that those of us in Congress who were waiting to discuss it were not informed or given opportunity to do so.

It must be remembered that the Porter Resolution was promoted and passed at a time of more or less general official and lay hysteria and uncertainty and misconception resulting from certain promotions and propaganda of the past three or four years and the misleading sensational publicity which has accompanied them. (These are pointed out in my own Congressional speeches and elsewhere.)

As has also been pointed out accompanying this hysteria and these promotions has come a suppression of practical education and of attention to the practical problems of the domestic situation which has developed as predicted with the promotions, propaganda and publicity and administrative policies of the past four years.

(All of this is so fully discussed in my Congressional speeches and elsewhere, and endorsed by official action of the leading scientific organizations, that it is unnecessary to discuss it in this place.)

Extensive information is easily accessible to anybody seeking for real understanding and comprehension.

It is obvious that the most important considerations and causative factors for the narcotic situation and conditions existing in these United States today, are to be found in forces and factors beginning and functioning within our own borders, and which have eliminated constructive work and education and machinery of practical progress and remedy and control.

It is equally obvious that the attempted regulation of production on the basis of statistics of questionable value or conjecture or amounts named for political or other motives, not only has no value in the real solution of this problem, but may furnish unwarranted distraction from its urgent needs and obstacles to progress in its real remedy.

And as I pointed out above, when coupled with the censuring of friendly foreign powers may lead to international complications as an unfriendly act.

It is exceedingly unfortunate that more of the really qualified experts and authorities on this subject were not called to testify before the Committee on Foreign Relations, or consulted by the sponsor of this bill preliminary to its drafting and presentation.

The testimony of Assistant Attorney General John W. H. Crim, and some of the medical gentlemen who spoke at the hearings, shows that there are needs and considerations of most urgent domestic importance—*and of domestic origin*—compared with which more or less speculative possibility and usefulness of international regulations is a matter of very minor importance, at the present time.

I make this statement deliberately—in view of and with full knowledge of the experiences, and experiments and history and record of this matter with which I have been fully familiar for the past twelve years.

There can be no objection to endorsing a *principle* of holding production of these drugs to the amounts required for legitimate or medical and scientific use. Although not before made the subject of legislative enactment, this *principle* has always been axiomatic and universal in recognition—however impractical it has been of tangible application under past and present conditions of strife and struggle and controversy and endless promotion and propaganda and political and other group exploitation which have so unfortunately characterized activities and discussion of this subject of narcotic drugs.

It is my regret that as long as the Porter Resolution attempted to enunciate this *principle*, it did not do so in such a way that its enunciation could not be used in special interests or political promotion or in *propaganda as the only or most important consideration in the remedy of existing conditions*.

In other words, I am afraid that the objection may some day be raised either within our own borders or by some foreign power, that what purports to be a declaration of what is an unobjectionable *principle* has been made a carrier for some unproven and dangerous statements, which could easily have been avoided or corrected by more extensive investigation into ample and easily accessible information and data, or by an unbiased investigation into the facts of the narcotic situation in these United States.

In view moreover, of the evidence of Assistant Attorney General Crim, and of the most reliable and authoritative speakers at the hearings on this Porter Resolution, and in view of the practically unanimous endorsement of the statements and analysis contained

in my own Congressional House Resolution, No. 258, and the recorded experience and collected data and most extensive record upon which my resolutions and speeches were based, and in view of the testimony and findings of such extensive investigations as that pursued by the Whitney Joint Legislative Committee, in New York State, and the able studies and competent opinions and expressions of the Federal administrators of the Harrison Act under the Bureau of Miscellany (before it was placed in the Prohibition Bureau, 1919), and in view of the various other information, easily available (and referred to in the course of the hearings on the Porter Resolution itself): In view of these and other considerations, I consider it most unfortunate that recognition of these conditions and considerations in our own country, and the needs for making possible and developing and improving medical study and care and *education* in this matter were not introduced by the sponsor of the Porter Resolution, either as concomitant resolutions or as recommendations.

These hearings might easily have been made a source of reliable and complete Congressional and administrative and public information to the *actual facts* and as to the *most urgent needs* of this matter by the simple process of more extensive preliminary inquiry and more complete consultation with widely known and recognized authorities.

In concluding, I would warn the organization of the B. P. O. Elks that this narcotic matter has been for at least twelve years to my personal knowledge, and as shown overwhelmingly in a great mass of data and literature and record—infested with promotion and propaganda of various sorts and origins which have been openly charged with commercial or other ulterior motive and accomplished by an obviously press-agented journal which makes it extremely difficult for the organization nor completely informed to act practically or intelligently.

I have made this report more than a mere epistolary answer to your request, and have entered into the above discussion for the reason that it is my hope that the B. P. O. *Elks* may turn its great and beneficent forces and powers into the channels of real study and investigation and of needed help and treatment for the hundreds of thousands afflicted, now abandoned to the exploitation and extortion of the underworld peddler and the corrupt official and misleading sensational journalism.

It is my recommendation that if the Porter Resolution be endorsed, it be endorsed *in principle only*, and with reservations as to the matters I have indicated and recommendations as to the needs I have pointed out in this report for immediate attention to the domestic medical and administrative and sociological problems of this situation and co-operative work in their practical consideration and handling.

For which purpose I hereby place at the disposal of my brothers, any facilities, advice, material, or avenue of information which are at my command.

Respectfully submitted,

LESTER D. VOLK.

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Below is a list of subscribers from down state and Chicago to the Lay Educational Fund as per letter sent members soliciting fund and cooperation. The list has been carefully checked to make sure of accuracy. If an error has crept in kindly note same and forward to the committee:

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F. S. Selby
R. C. Steffen
Samuel Stein
Charles E. Sceleth
A. E. Stewart
Samuel Salinger
F. H. Schroeder
A. W. Seidel
B. D. Satek
H. Schmitz
A. F. Stevenson
C. E. Stanbury
Charles Schott
J. A. Stough
James W. Skebelsky

John W. Stanton
H. J. Stewart
Anna H. M. Sharpe
I. Trostler
E. D. Tallman
F. P. Thompson
E. E. Tansey
John W. Tope
John J. Theobald
G. D. Theobald
H. M. Thometz
Frank F. Trombly
W. M. Thomas
Geo. F. Thompson
Max Thorek
L. L. Turner
H. Tetler
J. W. Van Derslice
F. D. Vreeland
W. VanHook
B. L. Vilna
Walter Verity
R. Von der Heydt
Wm. S. White
S. A. Waterman
D. H. Wherritt
S. S. Winner
S. L. Weber
Joseph A. Waska
Will Walter
J. H. Walsh
E. W. Westland
Joseph Zabokrtsky
John A. Wesener
Charles Windmueller
H. L. Wallin
H. A. Ware
B. E. Walpert
M. S. Wien
J. T. Woof
C. F. Weinberger
A. W. Woods
Theo. B. Wood
G. V. Wyland
Edward Wrightsman
W. J. Wanninger
Joseph Welfeld
M. Robt. Weidner
P. Weigner
A. H. Waterman
T. G. Wallin
Geo. W. Webster
A. Whamond
H. Woehlick
E. Weber
C. J. Whalen
K. N. Wakeberg
F. F. Wisniewski
T. M. Wiersen
T. J. Williams
H. J. Way
J. C. Williams
F. G. Whamond
P. Wiegner
C. F. Yerger
A. Yuska
T. Z. Xelowski
H. Zaczek
O. Zelezny
Lucius H. Zeuch

"I am in accord with the proposed newspaper educational campaign in the press of Illinois, unanimously adopted by the House of Delegates of the State Society at the 1922 meeting of the plan recommended by the Council of the Society, and as evidence of my desire to co-operate with the Officers of the Council and of the State Society, I hereby enclose my check for \$..... to aid in defraying the expenses thereof:

Make Checks Payable to the Illinois State Medical Society.

Name..... M. D.

Street

City..... County.....

"Sign the above pledge card, make out a check payable to the Illinois State Medical Society and mail both in an envelope as follows:

From

ILLINOIS STATE MEDICAL SOCIETY,
c/o Cashier, Sheridan Trust & Savings Bank,
4738 Broadway,
Chicago, Illinois."

Lay Publicity Committee, 25 E. Washington St.

TOPICS IN BRIEF—LITERARY DIGEST

Where "moonshine" comes from is a secret still.
—Tampa Tribune.

Hospital statistics suggest that too many put the quart before the hearse.—Washington Post.

Dr. Barrett says failure to live to 75 is going to be a crime. Punished with death, too.—Greenville Piedmont.

A Chicago business man died in a taxicab. If you have a weak heart, it doesn't do to watch the meter.—American Lumberman.

It may be that fruits feel pain, as that Frenchman says, but the grapefruit is the only one that can hit back.—Newark Ledger.

Face powder keeps husbands loyal, says advertiser. Some women consider gunpowder more reliable.—Wall Street Journal.

It must be comforting to the monkey to learn from the anti-evolutionists that he is now absolved of all responsibility for the human race.—Asheville Times.

Prohibition is still in its infancy in America, says one of its advocates. In some parts it certainly seems to be still on the bottle.—Punch (London).

FEARS EXPOSURE

Dr. Simms: "I'll take an X-ray picture of your stomach. You would be amazed to know what wonderful things we find with that wonderful invention."

Mr. Stubbs (to himself): "Great Scott! That bottle on my hip is sure to show in the picture."—Medical Pickwick.

The proposed campaign cannot be prosecuted without funds; it must be supported by popular subscription. It is hoped that every doctor will subscribe to this worthy cause. Serious disease diverted from the incompetent will result in the saving of thousands of lives and will prevent much permanent invalidism.

This campaign will achieve two great objectives: A gradual, but ultimate restoration of the medical profession to its merited place in the public sympathy and confidence and the inestimable benefits to humanity through the consequent prevention of disease and the preservation of life.

For the convenience of those who have mislaid their letter of Appeal from the State Society, we hereby reproduce the pledge card:

Please sign and mail to the Illinois State Medical Society.

To the Officers of the Illinois State Medical Society and Members of the Council:

Original Articles

THE DOCTOR AND THE PRESS FACE TO FACE.*

RICHARD J. FINNEGAN

Managing editor of The Chicago Journal

CHICAGO.

It is fitting for doctors and the press to meet face to face and discuss the things that they have been doing in common for many years. They can then work to better advantage hand in hand.

Most people regard the church, the school, the law and the press as the arms of organized society which carry the chief burden of the uplift of mankind and create that proper respect for government which allows the nation to function in its most efficient manner.

In The JOURNAL office, for twenty years under the regime of John C. Eastman, our editor and owner, we have recognized the medical profession as one of the major propelling forces for collective progress and individual advancement. It was the idea of the founders of our nation that freedom of the press was the most important right for which freemen should strive in order to maintain their freedom. That was the day of tyrannical rulers whose will was law and whose decrees of death, exile and other forms of punishment drove the people to organize for self-protection. The first American flag was not red, white and blue. It had a white background on which were black lines—the printed words of editors whose courage gave rise to that slogan, "Here shall the press the people's rights maintain."

In this day the press has its mission as in the past, but instead of tyrant kings there are other tyrannies to be encountered, some insidious and subtle, working in the dark, others brazen and outspoken, working in the light of day.

In the hundred and forty-eight years of American independence, progress in all lines of human endeavor, but particularly in science, has been so far-reaching and marvellous that no one set of men, such as editors, can be expected to hang all the beacon lanterns in the belfries of liberty or ride as Paul Revere to spread the alarm when the invading foe comes in with the tide of unrest and sounds the reveille for the forces of destruction to gather under his banner.

There must be outposts where friend is distinguished from foe. There must be intelligence agencies to transmit the signals of warning. On The JOURNAL, and I am sure on hundreds of other American newspapers, the medical profession and its organizations are regarded as one of the most important of these.

It is a proven theory that the most successful government is that in which the individual is freest from molestation in his personal, family and vocational happiness, consistent with the corresponding freedom of his neighbors and the general welfare of all. The most conspicuous Americans have been those who fought the hardest to maintain this idea. The great majority of Americans today realize this truth, and live in the belief that they are secure in the enjoyment of absolute liberty and need not worry that it will be taken from them. They are the great unorganized mass of every-day citizens.

There are, however, other groups, *minorities highly organized, impelled by mistaken conceptions of grievances, whose activities are gradually encroaching on the majority.* We are, as Secretary Hughes says, *the victims of these "pests."* It is not necessary at this time to go deeply into this subject, but my aim is merely to call one phase to mind, as it concerns your profession and mine.

The history of medicine in the United States is one of the most glorious contributions to modern civilization. Rome was great in lawyers and orators, but weak in doctors. It used to be the boast of pompous Romans that the Roman empire lived for 600 years without a recognized medical profession—but look where the Roman empire is today.

America would not be what it is at this hour without American medicine. This great profession has created and perfected itself, *without undue interference or direction from legislatures, trotting to the beck and call of lay minorities that do not appreciate the devotion to the high calling, the self-abnegation and the fine sense of ethics, honor and public welfare that have marked the careers of American physicians and surgeons.*

A nation cannot progress any more than an individual unless it is healthy physically. The healthiest civic and national mind will be found in the healthiest civic and national body. *It is undoubtedly true that the United States leads the world in health, and if that is so the credit*

*Address at the annual dinner of the Chicago Medical Society, October 10th, 1923.

is due to American physicians and surgeons. The selective draft in the war showed us our weaknesses, and they were appalling to many, but our condition appeared less serious when our statistics were compared to those of other countries.

The American medical profession needs to take no back seat when its accomplishments are compared to those of its other professions; or to the advance in any other avenue of American endeavor. For every shining name in statecraft, law, journalism, education, theology or industry, there is an equally luminous name in medicine or surgery.

The secret of the success of American medicine has been its freedom of initiative for the individual and the bounty of reward allotted to pre-eminent accomplishment resulting from years of study and labor.

I need not tell you that in recent years the world-wide tendency to government paternalism is beginning to assert itself against your citadel. You could tell me more instances than I could assemble to prove that statement. You could cite the example of Russia, England, Germany and other countries where medicine and surgery have been commercialized and governmentalized, to the detriment not only of the profession, but of the people and the countries.

Our President was nominated for the office of vice-president because he was impervious to appeals that he used his authority as governor of Massachusetts to help the police of Boston win a strike which they had launched in the post-war travail. A premier in England was able to keep his office because he "solved" certain social-political problems by doles and other expedients under which several thousand state physicians now threaten to strike and leave millions of dependent people at the mercy of any epidemic that might appear.

Unless the champions of pure American ideals are constantly on the alert, it is easy to foresee a time when the "isms" of Europe, already blown in seed form to this country, may take root and require much more strenuous attention than if they are plowed under now.

After the hearings in Washington on a certain bill, I happened to read a medical journal and ran across some of the speeches that had been made before the committees of Congress against that legislation. I was amazed that I had not seen them before. Like other editors, I had re-

ceived many of the arguments advanced in behalf of that law. But, if my memory serves me correctly, I never had been supplied with any extensive literature opposed to it.

Of course, the Washington correspondents and the press associations, like the Associated Press and the United Press, had carried on the telegraph wires skeleton accounts of the proceedings before the committees, and in these were boiled-down quotations of medical men who volunteered their time and services in behalf of their profession to go to the capital. *It is a fact, however, that propaganda sent to the press in favor of the measure was highly organized, and I even remember that some of it came into the office on government stationery and was carried in the mails under government frank.*

This leads to the casual reflection that the physicians of the country do not avail themselves of the modern opportunity to get their views before the public. Perhaps in no other country in the world is the press agent so active as in the United States. Great commercial institutions maintain not only highly organized advertising departments, which prepare and have printed paid announcements, but in addition, take from the staffs of the daily press some of the brightest and best-trained of our men and women, who write editorial matter and "stories" that are sent out as "news," in the hope that a busy editor will have an inch or a column of space that will be a resting place for these efforts.

I suppose that the doctors of the United States devote a third of their practice to charity or free cases. If the newspapers printed all the publicity puff that comes to them, from a third to a half of their space would be used to accommodate free advertising masquerading as news. Some of it is printed, of course, but the ordinary reader has no conception of the amount of time consumed in the newspaper office in eliminating the press agent's handout.

There is a frenzy for publicity. It touches not only business, but reaches into the homes of the high and the lowly. I often recall a few paragraphs in Plutarch's life of Marcus Brutus, describing the destruction of the Lycian city of Xanthus. As the Roman army advanced, the Lycian men and women set fire to the city, gathered reeds, and scattered the fire to every corner. Then by the thousands they leaped from the city walls and other vantage points into the

flames, and in other ways killed themselves and their families, until the destruction became so enormous that Brutus rode around the walls and pleaded with them to desist. He even offered rich prizes to those of his own soldiers who would save the lives of the crazed inhabitants. Writing of this fearful frenzy, Plutarch described it as "a violent appetite to die."

The American frenzy to appear in print can be pictured in no better phrase than "a violent appetite" to bask in the spotlight. To get a picture or a speech in the paper seems to be life's sole ambition to some people. In fact, psychologists and police declare that certain of Chicago's most common crimes committed by girls and boys are inspired by a certain bug that they pick up in the swirl of this moving picture age. They have a violent appetite for notoriety.

A vast quantity of the publicity that reaches the newspapers is commercial and theatrical. A smaller amount—very much smaller—is insidiously prepared for the purpose of destruction—*aimed at the government, at the courts, at the churches, at the medical profession, at business, at labor and even at the press itself. It bears the poison of discontent in an arrow labeled "news."*

Then there are many worthy institutions and excellent causes that appeal to the newspapers for aid and co-operation. Great national, state and local organizations that are working zealously for the public welfare, the uplift of the unfortunate, the advancement of the church, the saving of the morals of the young and old, the education of the masses, the promotion of harmony of creeds and races, and so forth, have their press bureaus or public relations committees. These are the volunteer co-workers with those earnest newspapers that have not lowered their standards to become mere hawksters of pictures of bathing girls and publishers of lewd literature. They meet the press face to face, look the publisher and editor straight in the eye and say, "We, like you, are trying to help America and its people. Assist us, if you have the space, to get our message across."

That you might understand the wide range of publicity that comes to a newspaper office, I asked one of The JOURNAL's staff to keep track of the first fifty pieces of publicity that reached the office by telegraph, mail and messenger, eliminating all commercial, theatrical and movie contribu-

tions and also so-called "welfare" organizations one of The JOURNAL's staff to keep track of the offerings ran to more than 1,200 in three days. Fifty-two that might interest you are the following:

Republican, Democratic and Socialist parties.
 American Bar Association.
 American Child Health Association.
 American Peace Award.
 American Red Cross.
 Art Institute of Chicago.
 Better Homes in America.
 Board of Temperance, Prohibition and Public Morals of M. E. Church.
 Chicago Public School Art Society.
 Chicago Theological Seminary.
 Child Health Association.
 Christian Science Church.
 Cornell College.
 Forestry, Reclamation and Immigration conference.
 General Federation of Women's Clubs.
 Harvard University.
 Illinois Department of Public Health.
 Illinois Department of Labor.
 Infant Welfare Society of Chicago.
 Jewish People's Institute.
 Kiwanis Clubs.
 Knights of Columbus.
 Ku Klux Klan.
 Massachusetts Institute of Technology.
 Mississippi Valley Association.
 National Association for the Advancement of Colored People.
 National Kindergarten and Elementary College.
 New York University.
 Northwestern University.
 Philippine Press Bureau.
 Purdue University.
 Rotary Clubs.
 Salvation Army.
 Society of the Divine Word (Japanese Earthquake).
 Union of American Hebrew Congregations.
 United Mine Workers of America.
 United Presbyterian Church.
 U. S. Association for Identification.
 U. S. Children's Bureau.
 U. S. Department of Agriculture, American meat, weather.
 U. S. Department of Commerce—census bureau.
 U. S. Veterans Bureau.
 U. S. War Department.
 University of Chicago.
 University of Wisconsin.
 Veterans of Foreign Wars.
 World Alliance for International Friendship Through the Churches.
 World Conference on Faith and Order.
 Y. M. C. A.
 Y. W. C. A.

Of course, all that matter was not published. A paper that printed it would be dull. But some

of it kept us in touch with what other people were doing.

You will notice that there were no organizations of physicians there. The medical profession was silent. It had tonsilitis or throat paralysis that stilled its voice. Standing on its ancient plane of high ethics, it waited for the reporter to come to it. In twenty-two years in the newspaper field, I do not remember ever having seen any statement or other offering that could be regarded as publicity coming from the American Medical association. Nor do I recall any from the Chicago Medical Society. Although your profession may be under fire, you do not even resort to self-defense, the first law of nature.

As a matter of fact, physicians and surgeons not only do not initiate publicity, but they run away from it. Most doctors become elms when the newspapers approach them. I do not suggest that you lower the bars on your confidential relations with your patients. You may say that newspaper men do not possess the technical knowledge of your profession to be entrusted with your confidence. If that is so, you might try to teach us. Your profession has the distinction of being the only one that manifests that shyness.

Editors are crying for relief against a flood of publicity. Let me not be among those who may be accused of increasing that flood. But the press and the doctor do meet face to face many of the problems of life and death. They travel the road side by side, seeking to alleviate the sufferings of humanity, each in its own way, but often working jointly. The press is not all-seeing, all-knowing, all-present. Perhaps the medical profession, wise in its own high standard of ethics, is right in standing aloof, but there are things that doctors do and there are great secrets that your profession holds that add not only to the physical, but the spiritual and moral welfare of your fellow-citizens. *We are informed that in a generation the average lifetime has been lengthened 7 to 12 years. What contribution has any group made to America that is more valuable than that?* The doings of the profession that accomplished it are matters about which newspaper readers should be informed. There is lots of news going to waste. The profession is losing an opportunity to help the people and the country and millions of Americans remain in ignorance of matters that would benefit them.

There must be some compromise ground on which your duty to spread the knowledge of health and your standards of ethics can be allowed to merge. When you discover that ground, I feel sure that the press will lend its ready hand of co-operation.

RECENT DEVELOPMENTS IN RADIUM THERAPY*

FRANK EDWARD SIMPSON, A. B., M. D.

Professor of Dermatology, Chicago Polyclinic; Adjunct Clinical Professor of Dermatology, Northwestern University Medical School; Former Chief of Dermatological Staff, Cook County Hospital.

CHICAGO

One of the most interesting and important of the recent developments in radium therapy consists in the use of radium emanation instead of radium itself for the purpose of giving therapeutic exposures.

The expression "radium emanation" is not a happy one as the term has also been applied to the radiations themselves which may be said to "emanate" from radium. Confusion has thus arisen so that in the minds of some the term "emanation" simply means the "radiation." This view is entirely incorrect.

Radium emanation is, as we know, a gas. It is the first decay product of radium itself. It has many properties in common with other gases such as hydrogen, nitrogen, etc. It differs from most gases, however, in being radio-active.

If we extract the gas known as radium emanation from a solution of radium and confine it in a tube, the tube containing the emanation may be used to radiate the tissues exactly as if it contained radium itself. Due allowance must be made, of course, for the decay of the emanation, which depreciates approximately 16 per cent. every 24 hours.

The advantages of radium emanation over radium itself are numerous. Among them may be mentioned the following:

First, the danger of losing the radium is obviated. This is a very great advantage when many tubes are in constant daily use.

Second, it is possible to concentrate a very large dose in a very small tube. In the larynx, for example, one may use 600 or 800 or more millieuries in giving an exposure for intra-laryngeal cancer.

*Read before Summit County Medical Society at Akron, O., March 21, 1923.

It would be impossible of course to introduce this quantity of radium itself into the larynx.

The radium emanation method has been used successfully by Dr. Otto T. Freer and myself in a large series of cases of laryngeal cancer, a certain proportion of which have recovered clinically for considerable periods of time.

Third, in suitable cases, radium emanation, contained in minute glass ampoules, can be inserted directly into the tumor tissue. This procedure forms one of the most useful and important methods of treating certain localized tumors.

This newer method has practically revolutionized the treatment of certain tumors and has rendered the use of steel needles containing radium salts for the puncture of tumors practically obsolete.

The advantages of glass ampoules containing radium emanation are numerous. Among them are:

1. Traumatism is minimized.
2. The softer beta rays, having to penetrate only the glass wall of the ampoule are effective in bombarding the cancer cell.
3. The dosage is quite exact.

This last point is very important as experience has shown that tumors must not be treated with excessive doses, an error quite as great as treatment with insufficient doses.

Methods of using radium or radium emanation. At the present time there are two principal methods of utilizing radium.

One method has just been described—that of intra-tumoral radiation with radium emanation.

The other method consists in the use of very large quantities of radium at a certain distance from the tumor—so-called surface or “distance” radiation.

In using the intra-tumoral method, the most minute doses are sufficient and indeed large doses may be actually harmful.

The experiments of Halsey J. Bagge have shown the advisability of using not over $\frac{1}{2}$ to 1 millicurie of emanation in each ampoule.

On the other hand, in employing surface or “distance” radiations, very large quantities of radium are advisable and even necessary if the best results are to be obtained.

To obtain the best effects, at least 1,000 milligrams of radium element or millicuries of emanation must be available.

Radium has emerged from a certain stage in its development when it was thought that 50 or 100 or even 200 milligrams were sufficient for the reduction of almost any tumor. We now know that the largest quantities of radium are necessary if all the resources of which radium is capable are to be put at the disposal of patients.

Too small quantities of radium, an insufficient equipment and an incorrect technic are responsible for some of the present unpopularity of radium treatment in certain quarters.

Penetrability of tissues by radium rays. About 10 years ago Prof. Bumm of Berlin reported upon the radium treatment of cancer of the cervix. He found that while cervical cancer could sometimes be cured by radium placed in the cervix, cancer cell nests situated more than 3 cm. from the radium tube were not at all affected. On this account, he stated, and his opinion was widely accepted, that radium did not have an efficient sphere of action of more than 3 cm. It has been very difficult to convince physicians that radium can be used successfully to treat large tumors situated e. g. deeply in the cavity of the abdomen.

I have elsewhere taken up this topic and have shown that Bumm's dictum is correct only under very special circumstances.

It is easy to demonstrate that if the quantity of radium is increased sufficiently and if, at the same time, the distance of the radium from the tumor is sufficiently increased, one may radiate any portion of the body with a dose adequate for the destruction of tumor cells. In order to accomplish this, however, one must use from 1,000 to 2,000 mc. at a distance of from 3 to 10 or more cm. from the tumor.

The use of 1,000 mc. or more in selected cases of cervical cancer as a local application in the vault of the vagina is attended with results that promise to be far superior to the former method of employing e. g. from 50 to 100 mc. for longer periods of time.

When tissues are used for comparing the penetrability, radium rays are approximately four times as penetrating as the hardest x-rays that can be technically produced. If an adequate supply of radium is to be had and if the technic is correct, even more intense deep effects can be produced with radium than with x-rays because of the greater penetrating power of the gamma rays.

The problem of screening off the tissues that one does not wish to radiate in the course of the exposure is a difficult one on account of the great penetrating power of radium rays. X-rays can be easily screened off but it must be remembered that radium rays are 30 times as penetrating as x-rays when metal is chosen as the test of penetrability.

The effect of large doses of radium rays on the blood can not be neglected when areas such as the neck, chest and particularly the abdomen are being radiated. We have seen, in former years, the leucocyte count drop as low as 1,000 apparently as a result of repeated radium exposures.

In order to obviate as far as possible these constitutional effects we are using, at the present time, in suitable cases, a special apparatus. This consists of a large metal screen, one inch thick, which fits around the block carrying the radium so that the radiation is practically confined to and concentrated upon the area to be irradiated. The apparatus is suspended above the table or bed on which the patient lies and can be raised and lowered and adjusted to fit any position of the radium. It may be shown by mathematical calculation that if the radium is placed at a distance of 10 cm. from the skin, all but about 10 per cent. of the gamma rays are screened off by the apparatus from the adjacent tissues, which one wishes to protect.

The choice of method of treatment. At the present time, radium seems to be encroaching upon the field of the surgeon in the treatment of a small selected group of malignant tumors.

Until recently nearly all radium therapists agreed that operable growths should be operated on.

At the meeting of the American College of Surgeons held in Boston in October, 1922, the opinion was advanced by Dr. Douglas Quick of the Memorial Hospital in New York, that in the treatment of the primary lesion of intra-oral carcinoma (tongue, cheek, lip, etc.) radium is to be preferred to surgery.

It should be especially emphasized, however, that all the resources of which radium is capable i. e. very large quantities and especially radium emanation ampoules must be available, if the best results are to be secured.

The method of treatment to be chosen depends naturally on the individual case. In dealing with selected cases of localized tumors every part of

which can be reached by means of a needle, the puncture of such tumors for the purpose of introducing glass emanation ampoules is effective.

In dealing with tumors which are very difficult of access the method of "distance" raying with upwards of a gram of radium element may be chosen. Sometimes a combination of these two methods is most effectual. The method to be used in a given case depends to a large extent upon the judgment of the physician.

INDICATIONS AND TECHNIQUE FOR MAJOR CHEST SURGERY*

DON W. DEAL, M.D., GEORGE THOMAS PALMER,
M.D., and HERMON H. COLE, M.D.

SPRINGFIELD, ILL.

Within the past few years, and particularly with the knowledge acquired during the world war, chest surgery has come to occupy a new and important place and has acquired a new and compelling interest. In the past, the surgeon has invaded the thoracic cavity with gravest apprehension while, in the light of our more recent knowledge, capable students prophesy that, within a few years, we will enter the chest with the same freedom that we now invade the abdomen. Whether or not this prophesy is too optimistic, the field of chest surgery has become infinitely more inviting to the physician and is giving new promise to large groups of otherwise hopeless patients.

The more recent methods of dealing with empyema and particularly with old and neglected empyemas, are familiar to all and will not be dealt with in these remarks and this is likewise true of the induction of artificial pneumo-thorax which, after two or more decades of varying popularity, has now become an accepted part of the conservative treatment of pulmonary tuberculosis.

The recent advances in our knowledge and experience, however, have made other and more radical surgical procedures not only possible, but thoroughly practicable for the competent surgeon working in close conjunction with the internist who has given special attention to the disease of the chest. We say this advisedly since it is our profound conviction that, at the present

*Read at 73d Annual Meeting of the Illinois State Medical Society, at Decatur, May 16, 1923.

time, at least, the more radical surgical operations of the chest should be preceded by highly specialized study and diagnosis and followed by after-treatment in which the skill and judgment of the lung specialist are absolutely essential.

In many cases of more or less unilateral pulmonary tuberculosis, in which there is rapid softening and in which artificial pneumo-thorax is rendered impossible on account of dense adhesions, the hopeless case may be made promising by extra-pleural thorocoplasty or the compression of the lung by multiple rib resection. Our own relatively limited experience in the employment of this procedure has convinced us that it has a much wider sphere of usefulness than is now generally recognized and that the operation is not unduly radical when one considers the hopeless outlook in the cases in which it is properly indicated.

In cases of bronchiectasis, rendering the patient unfit for association with others on account of the profuse and fetid secretions and in constant danger of serious or fatal complications, relief, not otherwise obtainable, may be secured through lobectomy which is rendered thoroughly practicable by the more recent methods and improved technique. The prevention or early arrest of lung abscess through bronchoscopy and aspiration; the drainage of lung abscess through the chest wall and the invasion of the thorax for the removal of neoplasms have all come within the scope of the surgeon since we have learned that relatively large areas of either one or both lungs may be exposed with impunity for a reasonable length of time; since we have mastered the intricacies of intrathoracic pressure and since we have become more familiar with intrathoracic operative conditions.

It is for the purpose of directing attention in a general way to the wider possibilities in this field and especially for the purpose of offering a few suggestions as to the modification of the established technique and the description of certain new instruments which have proven valuable in our work that these remarks are presented.

Briefly it may be said that the most serious problem of intrathoracic operation lies in the peculiar physical conditions existent in the thorax, which, to put it simply, is an air-tight movable box of two compartments each with

variable capacity. The changes in pressure within the thoracic cage constitute a very important factor in the circulatory mechanism, particularly in the venous supply to the right auricle, and any major change in pressure is likely to embarrass this circulation if brought about too suddenly or where there is pre-existing disease of the heart or the great vessels. Failure to properly safeguard the patient against these sudden changes has led, in the past, to the great majority of disasters in thoracic surgery. Sudden deaths on the table, gradual failure from valvular pneumothorax, embolism and suffocation will become rarities only when pressure phenomena are studied and understood in each individual patient and watched with care after operative interference.

It has long been recognized that the body is supplied with excess lung capacity and that considerably more than a half of it may be destroyed with little or no disturbance. One lung is sufficient for ordinary life and work and half of one lung will support life in comparative comfort. It is not mere loss of breathing space that concerns us in entering the thorax; but rather acute circulatory changes brought about by pneumothorax resulting in cardiac embarrassment or failure producing the picture commonly known as "pleural shock." All sorts of manipulations may be carried out within the pleural space with impunity provided a preliminary pneumothorax has paved the way for circulatory balance under the changed conditions of pressure. The pressure conditions in the chest, whether positive, atmospheric zero or negative, provided they are gradually produced and remain fairly constant, are not so important as the changes in these pressures necessitating rapid readjustment in the circulatory balance. Whenever possible, the gradual establishment of post-operative pressure conditions should precede the surgery and, in the after care, an effort should be made to maintain constant pressure in the side operated on. In the case of lobectomy, to be referred to later, preliminary establishment of expected post-operative pressure was prevented by adhesions; but it was found at the operation that fixation of the mediastinum was necessary and that some shock and circulatory disturbance occurred whenever the negative pressure drainage apparatus failed to function for any cause. It was found that fluid in the chest steadied the

mediastinum and later adhesions produced the same effect.

This factor of constant pressure is of importance in all operations under differential pressure. It should be employed whenever there is a probability of sudden change during operation or when the circulation is weak, simply as a matter of safety, and this pressure must be maintained during the after-treatment with suitable apparatus. This need be maintained only a few days, however, as the thoracic organs soon readjust themselves and have remarkable compensatory ability.

With these necessary preliminary remarks, we desire to present very briefly, from the service of the Palmer Tuberculosis Sanatoria, illustrative cases in which major operative procedure offered the only means of the saving of life and of possible assurance of future health, with equally brief comments on the modifications of the established surgical technique which have appeared advisable and the mention of certain new instruments which have proven or may prove of the utmost convenience.

Case No. 1078.—I. H., female, age 25. Patient has had cough with production of considerable amounts of foul sputum as far back as she can remember; but general health has remained good. In May, 1922, fever and general malaise developed and a lung abscess was diagnosed. She was operated on by the pleural route; but no pus was obtained and the wound healed. While on the operating table, however, she had a severe coughing spell and expelled nearly a quart of pus. A diagnosis of pulmonary tuberculosis was then made and she entered the Palmer Sanatoria for treatment.

On examination on entrance, patient was found well nourished, with marked clubbing of fingers and toes. The chest showed signs of cavity formation and consolidation throughout the right lower lobe with absent excursion at the base. The percussion note was flat before morning cough, and tympanitic after it. The left lung was clear except for a few moist rales in the second interspace. The sputum production amounted to 18 ounces in 24 hours and showed all of the evidences of bronchiectasis with characteristic foul odor. Negative as to tubercle bacilli each day for 30 days. No fever and no acceleration of pulse. A diagnosis of bronchiectasis was made.

During the next six months every effort was made to build the patient up. It was obvious that nothing in the way of general treatment would be effective. It was decided to try first collapse by artificial pneumothorax and, failing this, to attempt lobectomy. Several attempts were made to collapse the lung, with failure in each case except the last before operation, when partial collapse was obtained. This resulted in marked decrease in sputum production for three days

before operation. Since collapse was impossible, on account of dense adhesions, a lobectomy was performed under gas and oxygen anesthesia with sufficient ether to produce relaxation.

Operation. Patient was placed on her side with the point of entrance elevated by the use of a pillow. An incision was made in the third interspace beginning 3 inches from the spine and extending to the anterior axillary line. It was found that this incision was too low to expose the lobe and it became necessary to remove the 7th and a part of the 6th rib. Large stomach clamps were applied between the upper and lower lobes and left in place for a few moments. Mattress sutures of chromic cat gut were inserted in the stump with the ends left long. The lobe was then removed en masse. The stump was fixed to the chest wall by means of the long suture ends thereby fixing the mediastinum. Adhesions were scraped from the ribs to make the field as clear as possible and all foreign material was removed. A counter opening was made below the anterior end of the incision to permit drainage and the wound was closed.

The specimen removed showed the lobe to be honey-combed with dilated bronchi forming a multilocular sac of large capacity. The upper lobe was normal.

Continuous negative pressure bottle drainage was established and Dakin solution irrigations were carried out twice daily for a period of four weeks at which time the empyema had cleared up. The wound healed in six weeks.

Fluoroscopy showed an expanded and functioning upper lobe and the diaphragm at the third rib filling in much of the space occasioned by the removal of the lower lobe.

The patient has gained 15 pounds since operation and the temperature is now practically normal. There is still slight sputum production, probably from the stump. Among the interesting features in this case is the decided decrease in the clubbing of fingers and toes since the operation.

Case No. 942. E. R., female, age 22. Patient entered the Palmer Sanatoria, November 22, 1921, suffering from cough, night sweats, daily fever and chills, emaciation, weakness and marked digestive disturbance, giving history of an initial severe pulmonary hemorrhage occurring October, 1919. A diagnosis of pulmonary tuberculosis was made and the patient remained in bed for practically a year before entering the sanatorium, losing 28 pounds during this period. On admission to the sanatorium, patient was suffering from a far advanced pulmonary tuberculosis with a large cavity in the left upper lobe and infiltration of the left lower lobe and the right upper lobe. Her progress was continuously downward with marked softening and activity.

Artificial pneumothorax was attempted in the hope of obtaining temporary relief, but failed because of extensive adhesions and the case was considered entirely hopeless unless relief could be obtained through more radical procedure.

Operation. The patient was placed almost prone on the table with pillows under the chest, making the

left scapula the highest point. An incision was begun opposite the second spine on the left and carried parallel to the 6th rib, gradually curving out and ending at the anterior axillary line. The wound was retracted upward and downward to expose the 5 upper ribs. Sections of ribs were removed, beginning with one inch of the first rib and increasing to the 5th rib where a four inch segment was removed. The serious condition of the patient rendered the continuation of the operation impossible and the wound was consequently closed. Shortly after the operation it was noted that the lower ribs were acting as a fulcrum to the intercostal muscles and the weight of the shoulder pulling down the upper portion of the chest which, aided by sand bags, gave a more complete collapse than if all of the ribs had been removed. A secondary operation was consequently considered unnecessary.

There was a very great increase in sputum during the first week, but this steadily decreased and has practically disappeared. There was fever as high as 102 during the first four days, but this is now practically normal. The patient still has a small fistula discharging clear serum, but temperature and pulse are satisfactory, weight has materially increased and patient is now able to be up and about.

The foregoing cases are merely illustrative of the totally hopeless conditions in which thoracic surgery with satisfactory after-cure may give a favorable outlook. In connection with cases of this type, it has been deemed advisable to depart in certain details from the technique as described by other operators.

The incision along the seventh interspace, employed by most surgeons, has proven with us to be too low for favorable exposure of even the lower lobe. We have consequently adopted an incision in the sixth interspace as affording a much improved opening for any extensive work. With this incision we have learned that it is ordinarily unnecessary to resect ribs if, after making an incision along practically the course of the sixth interspace, one will simply cut the lower rib with the blade of the forceps at right angle (cutting slowly) and then resect about one inch of the upper rib. In this way, with the employment of a rib spreader, ample room is acquired without the usual extensive rib resection.

In lobectomy, we feel safer when the tissue at the base of the lung is crushed by heavy forceps before the lobe is removed and by the employment of double chromatic gut in over-stitching the stump. To prevent extensive exudate and to afford rest to the stump we recommend continuous post-operative pressure for several days. Subsequently a small stab wound can be used independent of the incision after it becomes

necessary for drainage. This is carried out with the usual air tight drainage.

As a preliminary measure, we found it desirable to induce artificial pneumothorax a week before the proposed operation, bringing about retraction of the lung tissues around the lesion or foreign body and bringing the pathology into splendid view.

As an anesthetic, it is our custom to employ nitrous oxide and oxygen with or without combined local anesthesia and possibly with the addition of a small amount of ether to induce complete relaxation.

On account of the relatively recent development in chest surgery, it has been found necessary or advisable to devise several instruments which are merely referred to at this time, but which will be described more in detail in this paper at time of publication.

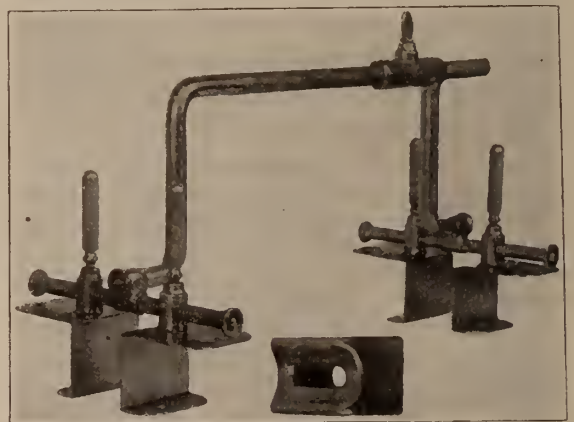


Fig. 1. Rib Spreader and "Sled."

One of these is a rib spreader made adjustable at all points and so devised that the arm falls out of the way of the field of operation. This spreader is successfully employed to prevent the tendency of other retractors to slide toward the center of the elliptical incision.

A second instrument, simple in construction, but practical in employment, is a rib sled or director consisting of a metal block concave at the bottom so as to slide over the rib and provided with a knife slit serving as a groove director.

A third instrument, known as a rib stripper, is made on the same general principles as the instrument employed in stripping the femoral vein, enabling one to remove eight or ten inches of rib with two small incisions, one at either end.

A fourth instrument which we have devised,

but which has not yet been employed, is modeled like the rib stripper, but with the handle consisting of two small tubes attached to the hollow loop; these tubes and the loop containing a giggly saw. With this instrument it is believed that any given length of rib may be removed by the employment of but one incision.

It is the belief of the authors that the next few years will see remarkable development in the field of thoracic surgery, affording relief in conditions previously regarded as inoperable and offering new hope in tuberculous cases formerly looked upon as hopeless. We further believe that in the future, every advanced tuberculous patient will be carefully studied to determine the existence of indications for radical treatment before being relegated to homes for incurables or to the asylum type of sanatoria.

It is the further convictions of the authors that, for the attainment of the best results, each thoracic case should be made the subject of joint study by the surgeon and by the internist who is especially trained in thoracic disease and it is our further conviction that the hospital in which thoracic surgery is carried out, must be especially prepared for such work, both in equipment and in special training of its personnel. The post-operative care is a matter of vital importance as is the reconstructive care for which the average hospital is not satisfactorily equipped.

On account of these convictions based upon a reasonable measure of practical experience, there is now being completed in connection with the Palmer Sanatoria at Springfield, a modern hospital section, including operating rooms, x-ray and general laboratories, and other facilities for the surgical treatment of diseases of the chest, both tuberculous and non-tuberculous. This arrangement will permit the carrying out of surgical work in close cooperation with internists familiar with the special requirements of thoracic work and will also afford the sanatorium after-care so essential to the ultimate recovery of this group of patients.

DISCUSSION

DR. ROLAND HAZEN, Paris: I have not had much experience with surgery of the lung. The work that Dr. Deal is doing is very important. I think the experience we had in war surgery has stimulated interest in lung surgery. The tremendous amount of work that has been done in Washington in the rehabilitation of soldiers who have had injuries to the lung

shows the work that can be done through collapse of the lung is very remarkable. The scores of cases shown in collapse of the lung in long-standing empyemas that have failed to respond after years is a revelation in surgery. Failures in empyemas have been due to bronchial fistulas, necrosis of the ribs and chronic thickening of the pleura. Of course in these extensive cases with extensive thickening of the pleura the rib resection and opening has been somewhat more extensive than the Doctor has described in the cases in which he has been especially interested. This again should show how much surgical mutilation the chest can stand if it is done under proper conditions. Then collapse of the lung in the correction of chronic tubercular conditions is a field which is being more and more developed. Of course, in tuberculous cases the cases that are unilateral must be selected; cases in which the active process has more or less subsided, and those in which adhesions to the chest wall prevent satisfactory relief by artificial pneumothorax.

DR. C. U. COLLINS, Peoria: I read a paper a year ago in Chicago on surgery of the lung and called attention then to the fact that the fear of entering the thoracic cavity was due to the experimental work done on dogs twenty or thirty years ago. If you attempt to do thoracic surgery on the dog and open one pleural cavity the air will go through and compress both lungs, which is disastrous, because in the dog there is an opening from one pleural cavity to the other. I think there has been a great fear of working on the human for this reason. I think that more work will be done on the human after we find that that fear is over-estimated.

I was very much interested in the suggestion of Dr. Deal to have the pneumothorax made three or four days before. I was also very much interested in the instrument which he has devised.

DR. H. N. COLE, Springfield: I agree with the previous speaker that there has been too much fear in opening the chest. The experimental work that has come out the last year has demonstrated that a great deal more can be done in the pleural cavity than in the past, particularly the work in freeing adhesions in the chest and the production of complete pneumothorax. I think the future holds a great deal for us in intrathoracic chest surgery. As we know more about the dangers of pressure changes which we are gradually learning we will do more in this line.

DR. DON DEAL, Springfield, Ill.: In closing the discussion I want to especially emphasize the point about preliminary pneumo-thorax. In our experience it has given a wonderful advantage over the older methods by obtaining atmospheric pressure before the chest is opened at operation and eliminating the collapse and flapping of the mediastinum. If collapse is to be brought about one should do it before the operation is performed, which simplifies the technique very materially.

Another point: The seventh interspace is entirely too low. By going into the sixth interspace and resecting a small piece of the sixth rib one can spread the opening additionally more than an inch as a result

of this resection and it is done without extensive resection of one or more ribs.

CONGENITAL PYLORIC STENOSIS WITH SPECIAL REFERENCE TO SURGICAL TREATMENT *

MAX THOREK, M.D.

CHICAGO

Pyloric stenosis in infants is a condition that is frequently met by the general practitioner, and unless he is expert in recognizing the symptomatology and sufficiently familiar to see that he is dealing with a case of pyloric stenosis, the results of deferring surgical treatment until too late are very often disastrous. In order to treat these cases with success it is necessary to make the diagnosis early and to operate, when operation is indicated, by some simple and rapid method.

The etiology of pyloric stenosis in infants is still an unsettled question. The condition has been ascribed to hypertrophy of the pylorus, to congenital malformation, to hyperplasia of inflammatory nature, or to spasm of the pylorus alone. The problem of etiology has, perhaps, been best elucidated by Strauss¹, who thinks that the condition begins in fetal life, as he has found pyloric stenosis in fetuses and in the new-born; also because in the majority of his cases the size of the pyloric tumor was absolutely proportional to the age of the infant. The condition probably begins during fetal development of the stomach, and is brought about by rhythmic contractions of the pylorus, due to abnormal stimulation from the intrinsic or extrinsic nerves of the stomach, i. e., pyloric stenosis is only an advanced stage of pylorospasm.

In view of the unsettled state of the etiology our treatment, whether medical or surgical, is to a great extent empirical; but whatever be the true cause the indication is clearly to permit the passage of food from the stomach to the intestine and prevent the infant's death from starvation.

Usually there is a tumor at the pylorus, though some consider that the presence of such a tumor is not essential to diagnosis. Downes,² on the basis of 217 cases, states that the pre-operative diagnosis of a pyloric tumor was only

proved incorrect twice. Levy³ and Ladd⁴ think that often in serious cases a tumor cannot be palpated. Gray and Pirie⁵ and Thompson⁶ are, however, of the opinion that the presence of a tumor is pathognomonic. Helle⁷ says that a tumor may be absent at operation in the very cases in which preoperatively it was most distinct. It is possible that these varying opinions may be reconciled by adopting Strauss' view that pylorospasm and pyloric stenosis are different stages of the same process. Where a tumor actually exists it may persist long after other symptoms have disappeared, as it has been commonly observed that after a gastroenterostomy the food continues to pass through the new opening instead of through the pylorus. The result is, however, entirely different after the pylorus is split, as in the Rammstedt operative method. Ransohoff and Wooley⁸, Holt⁹ and others have reported a number of cases in which the patients died at intervals of from six months to two years after a Rammstedt operation and in which the tumor had entirely disappeared. Woolstein¹⁰ studied 22 cases which had died within from twenty-four hours to two years after a Fredet-Rammstedt operation and found conclusively that recovery was complete after this operation and that recurrence is impossible.

Radioscopic examination of the stomach and pylorus is of the most distinct value in arriving at a diagnosis in these cases. Downes states that since a correct diagnosis is possible in 90 per cent of these cases on the clinical findings alone he has not thought it necessary to resort to the x-ray. Thompson is of much the same opinion. Strauss believes that the fluoroscopic examination is the most important means of reaching an accurate diagnosis, and that moreover it indicates the treatment. Whether a given case is amenable to medical or demands surgical treatment depends upon the percentage of a bi-smuth milk meal which passes through the pylorus in a given time, say four hours. In our own cases, to which we will presently refer, we have adopted this criterion:

For some the criterion which indicates operation is loss of weight. When there is even a palpable tumor if loss of weight is not rapid and the general state and conditions good it is judged that non-operative methods should be tried; but if loss of weight is rapid and vomiting continuous the child should be operated on

*Read before the North Shore Branch of the Chicago Medical Society, April 3, 1923.

without delay. These views are generally based upon the findings of Goldbloom and Spence,¹¹ who showed that the mortality after the Rammstedt operation was nearly six times as great in babies that had lost 20 per cent or more of their best weight than in those who had lost less than 20 per cent. Hence, operation was indicated

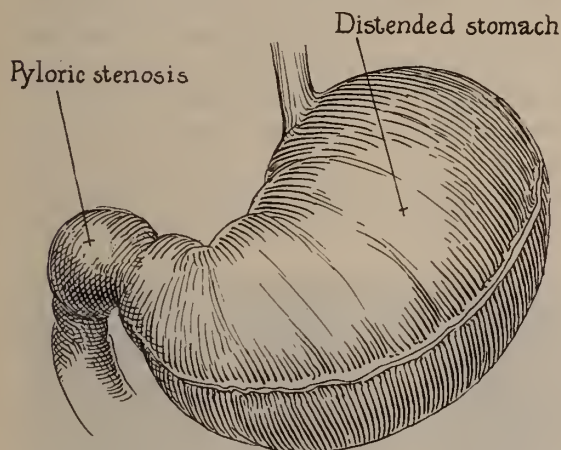


Fig. 1. Congenital Pyloric Stenosis.

if the loss was 20 or more per cent of the best weight.

Medical treatment has been recommended in this condition on the ground that many of the cases are purely of spasmodic type. If we adopt Strauss' view that spasm and stenosis are only different stages, then there is no such condition as a purely spasmodic pyloric congenital occlusion, the indication for medical treatment fails, and the therapeutics become entirely surgical. The simplicity of the Fredet-Rammstedt procedure and the immediate relief it affords are other reasons why the operative treatment should always be that of choice in the pyloric stenosis of infants.

The tender age of the patients and their slight resistance makes it imperative that the surgical method should be rapid and offer the least amount of trauma and shock. The aim must be to afford relief with the minimum amount of surgery. Gastroenterostomy is too formidable an operation and may be at once ruled out. Pylorotomy, as done by McCaw and Campbell¹² in 1904, does not respect the mucous membrane and takes too much time. Other pyloroplastic methods have generally the same drawback of occupying too much time.

Fredet¹³ executed his first operations of severing the muscular ring of the ring of the pylorus,

leaving the mucosa intact, in 1907. His results were published in 1910. This operation was perfected by Rammstedt¹⁴ in 1912, and is now known as the Fredet-Rammstedt operation. It consists in dividing the hypertrophied muscle coat in the axis of the pyloric canal, the mucous membrane being left intact, and using no sutures to close the gap. A small incision only is necessary, as the pylorus and its adjacent parts alone need to be brought out of the wound. Some think that the incision is best made in the middle line for about one and a half inches commencing from the ensiform cartilage as hemorrhage is then best avoided. The pyloric muscle is split along the anterior face, taking care to avoid the branches of the pyloric and right gastro-epiploic vessels. The surgery must be as systematic and rapid as possible, and these little patients demand the greatest attention to operative details and conditions of surroundings.

With regard to the prognosis in cases of pyloric stenosis of infants: Ernberg and Hamilton¹⁵ report 57 cases treated medically with 3.5 per cent mortality; Strauss operated



Fig. 2. Congenital Pyloric Stenosis Abdominal Incision Used by Author.

on 107 cases by pyloroplasty with 3 per cent mortality; Helle's mortality was 5 per cent and Downes' 17.1 per cent by the Fredet-Rammstedt method. Goldbloom and Spence report that in the babies' hospital, New York, there were 163 Rammstedt operations. In those infants who



Fig. 3. Congenital Pyloric Stenosis. Author's Operative Technique. Insert (A) Depicts Exsection of Muscularis.

had lost less than 20 per cent of their best weight the mortality was 6.58 per cent and in those with a loss of 20 per cent or more the mortality was 37.35 per cent.

Marique¹⁶ gives a tabulated statement of the results of the treatment of infantile pyloric stenosis by different methods, as follows:

	No. of Cases	Cured	Dead	Percentage of deaths.
Medically treated.....	172	90	82	49 per cent.
Pylorotomy.....	4	2	2	50 per cent.
Divulsion.....	46	25	21	46 per cent.
Pyloroplasty.....	45	21	24	53 per cent.
Gastroenterostomy.....	132	82	50	37 per cent.
Pylorotomy.....	233	197	37	16 per cent.

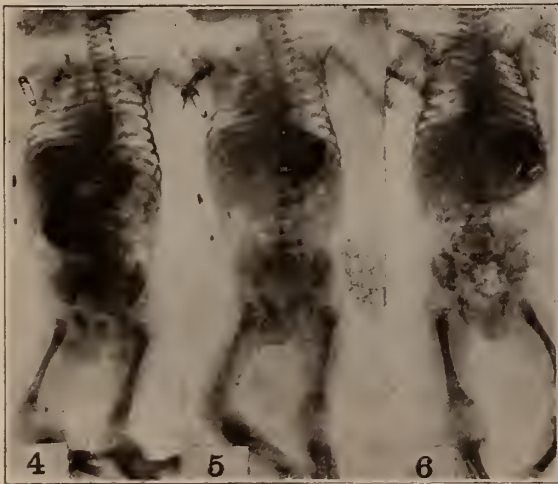


Fig. 4. Baby Blankey. No. 1266. Drs. Thorek and Withers. No. 1. Fifteen minutes after ingestion of meal. Pyloric stenosis. Dec. 17, 1921.
Fig. 5. Baby Blankey. No. 1266. Drs. Thorek and Withers. No. 2. Two hours after ingestion of meal. Complete stenosis of pylorus. Dec. 17, 1921.
Fig. 6. Baby Blankey. No. 1266. Drs. Thorek and Withers. No. 3. Five hours after ingestion. First barium visualized in small intestines. Dec. 17, 1921.

In my own practice at the American Hospital I have made a modification of the technic of the Fredet-Rammstedt operation. Fig. 1 shows a typical pyloric stenosis in an infant with distended stomach. A median incision is made to the right of the median line commencing at the right costal margin and proceeding downward and terminating on a level with the umbilicus (Fig. 2). The pylorus is lifted out of the wound and the serosa and muscularis divided down as far as the mucosa. It is needless to say that the mucosa is not entered. I then take a curved scissors and cut a longitudinal wedge from the thickened muscularis carefully avoiding hemorrhage. It is most im-

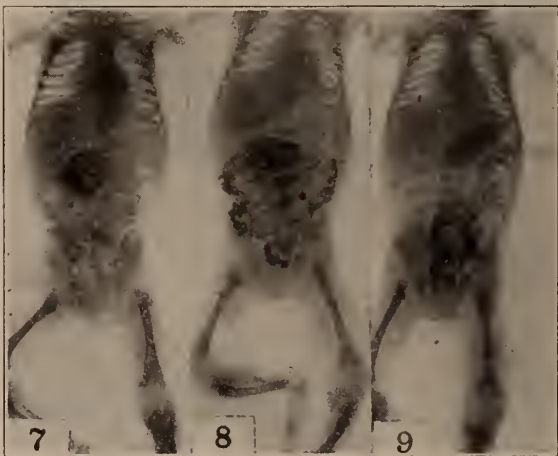


Fig. 7. Baby Blankey. No. 1266. Drs. Thorek and Withers. No. 4. Seven hours after ingestion of meal. Retention of about two-thirds of meal. Dec. 17, 1921.
Fig. 8. Baby Blankey. No. 1266. Drs. Thorek and Withers. No. 5. Fourth post-operative day. Thirty minutes after ingestion. Dec. 21, 1921.
Fig. 9. Baby Blankey. No. 1266. Drs. Thorek and Withers. No. 6. One hour after ingestion of meal. Stomach two-thirds empty. Dec. 12, 1921.

portant in these cases to avoid hemorrhage as any important loss of blood is a serious handicap to these weakened little patients. The gap in the muscle and the operative wound are left open.

This method does not sensibly take more time than the plain incision. The method is shown in Fig. 3. The case histories of a few typical cases of my series will follow. Local anesthesia is not used as it is found that infants stand a few whiffs of ether well, and even better than adults.

But few studies have been published in regard to gastric motility after operation for

pyloric obstruction in infancy. Veeder, Clopton and Mills¹⁷ gave roentgenograms in the cases of eight children of from one and a half to eight years old with pyloric stenosis, four medically and four surgically treated. In every case the conditions of gastric motility were found to be normal.

In the American Hospital we have made a roentgen study of several of these cases and the findings are recorded in the cases the clinical histories of which are given here. Figs. 4 to 18 are reproductions of some of these roentgenograms.

Case 1. Typical pyloric stenosis diagnosed roentgenologically. Modified Rammstedt operation. Recovery with good functioning.



Fig. 10. Baby Berg. No. 2615. Drs. Thorek and Withers. Congenital Pyloric Stenosis. No. 1. Fifteen minutes after ingestion of the opaque meal. Jan. 29, 1923.

Fig. 11. Baby Berg. No. 2615. Drs. Thorek and Withers. No. 2. Three hours after ingestion of the opaque meal. Almost complete retention of the meal. Jan. 29, 1923.

Fig. 12. Baby Berg. No. 2615. Drs. Thorek and Withers. No. 3. Six hours after ingestion of the meal. Retention of two-thirds of the meal given. Jan. 29, 1923.

Baby B. E., female child, brought to the American Hospital in the service of Dr. Withers, November 27, 1921. Roentgenogram taken fifteen minutes after the administration of barium meal showed that not a particle of the meal had passed through the stomach (Cf. Fig. 4). A second picture, taken two hours later, showed the same condition except that the stomach was more contracted (Cf. Fig. 5). At the end of five hours the bulk of the barium was still in the stomach (Cf. Fig. 6). At the seventh hour a picture showed that only a small part of the barium had entered the intestine the bulk being still in the stomach (Cf. Fig. 7). *Diagnosis:* Pyloric stenosis. Operated on by modified Rammstedt method, a typical pyloric stenosis with thickened ring having been found.

A roentgenogram taken the fourth post-operative day showed the stomach emptying a barium meal nor-

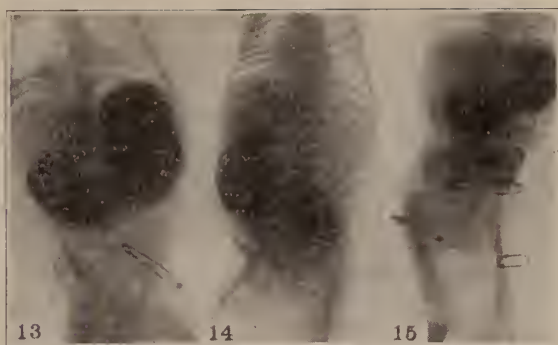


Fig. 13. Baby Phillip Desmond. 7 weeks old. No. 2469. Pyloric stenosis, pre-operative. Drs. Thorek and Withers. No. 1. Fifteen minutes after ingestion of the meal. No apparent pyloric opening. Beginning pylorospasm. Dec. 12, 1922.

Fig. 14. Baby Phillip Desmond. 7 weeks. No. 2469. Pyloric stenosis. Pre-operative. Drs. Thorek and Withers. No. 2. Two hours after ingestion of meal. Complete stasis of stomach. Dec. 12, 1922.

Fig. 15. Baby Phillip Desmond. 7 weeks. No. 2469. Pyloric stenosis. Pre-operative. Drs. Thorek and Withers. No. 4. Nine hours after the ingestion of the meal. Constriction of lower end of stomach and the pylorospasm are visualized. Dec. 12, 1922.

mally thirty minutes after ingestion. At the end of one hour the stomach was two-thirds empty (Cf. Figs. 8 and 9).

Case 2. Congenital pyloric stenosis. Baby B. G., brought to hospital with diagnosis of congenital pyloric stenosis. Roentgenograms taken at intervals of fifteen minutes, three hours and six hours after the ingestion of a barium meal. Three hours after the meal some barium was trickling through the pylorus. At the end of six hours there was a retention of about two-thirds of the meal in the stomach. (Cf. Figs. 10,

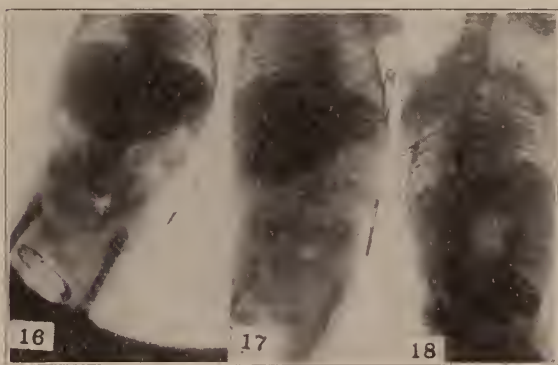


Fig. 16. Baby Phillip Desmond. 7 weeks. No. 2469. Third post-operative day. Drs. Thorek and Withers. No. 1. Immediately after the ingestion of opaque meal. Dec. 16, 1922.

Fig. 17. Baby Phillip Desmond. No. 2469. Third post-operative day. No. 2. One hour after ingestion of opaque meal. Beginning peristalsis. Dec. 16, 1922.

Fig. 18. Baby Phillip Desmond. 7 weeks. No. 2469. Drs. Thorek and Withers. Third post-operative day. Three hours after ingestion of opaque meal. Complete emptying of the stomach. Normal peristalsis. Dec. 16, 1922.

11 and 12). Operation and end results same as in previous case.

Case 3. P. D., male infant, seven weeks old, seen December 12, 1922, in the service of Dr. Withers in the American Hospital. A roentgenogram taken fifteen minutes after the ingestion of a barium meal shows apparently no pyloric opening (Fig. 13). A second picture taken two hours later shows a complete obstruction (Fig. 14). A compact mass was forced against the right side of the abdomen with the outline of the stomach plainly visible in the picture, the stomach being distended with gas. At the end of six hours a roentgenogram showed a constricted opening of the muscle at the pyloric end of the stomach. The roentgenologist thought that this was a case of pylorospasm and after nine hours had passed since ingestion of the test meal there was still constriction of the lower end of the stomach and the pylorospasm was visualized, giving the impression of an hour-glass stomach (Fig. 15). A modified Rammstedt operation was done in this case.

A roentgenogram made on the third post-operative day showed a beginning peristalsis one hour after ingestion of a barium meal, and after three hours the stomach was completely empty and with normal peristalsis. (Cf. Figs. 16, 17 and 18.)

Conclusions—

1. Every case of infantile pyloric stenosis showing progressive loss of weight should be operated on without delay.

2. The surgery must be rapid, systematic, and the least traumatizing, as it is imperative that shock and hemorrhage should be avoided.

3. The Fredet-Rammstedt method is to be preferred; but, instead of merely splitting the pyloric muscularis and leaving it unsutured, it seems best to excise a longitudinal wedge from this muscle leaving the serosa and mucosa untouched and the gap unsutured.

4. By this method the operative mortality of the American Hospital has been considerably reduced in a series of cases, and the recovered cases have shown excellent functioning without recurrence.

The American Hospital.

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CARCINOMA OF THE LARYNX*

FRANK J. NOVAK, M.D.,

CHICAGO

In discussing the question of carcinoma of the larynx I shall limit myself to the treatment. This may be classified under surgical, radiation by radium and x-ray or by a combination of the two, and electro-coagulation.

The problem of cancer, whether it be in the larynx or any other part of the human body is, I believe, not primarily surgical. When we attempt to remove a carcinomatous growth we try to do it by excision. In the very nature of the pathological process we know that it is impossible to determine grossly the exact limits of the tumor mass. The way the neoplasm spreads and grows makes it impossible to determine accurately what its limits are, and therefore when we try to remove a malignant growth by excision, it means that we incise it rather than excise it.

It is generally conceded that the incising of a neoplasm has two disadvantageous results: by incision of the tumor, what has been a relatively benign, slowly growing tumor may suddenly become a rapidly growing tumor and malignant. Moreover, it is my belief that the incision of the tumor has a tendency to disseminate metastases, so that when we try to excise a tumor of the larynx or elsewhere we do two things. We disseminate metastases and we sometimes stimulate the growth of what has perhaps been a slow growing and more or less benign tumor. For that reason I believe that cancer in the larynx or elsewhere is primarily not a surgical problem.

At this time I shall not go into the use of radiation by radium or x-ray. Dr. Freer, who is to discuss the paper, is an authority on these and will undoubtedly spend some time on the treatment by radiation in his discussion.

There is a method of treatment which I have been interested in for two years and that is electro-coagulation. We can by this method accomplish the same thing that we accomplish by surgery without any of its disadvantages.

*Read at the 73d annual meeting of the Illinois State Medical Society, at Decatur, May 16, 1923.

We can destroy the tumor completely, observing the destruction as the dessication of the mass takes place. The procedure is entirely bloodless, it is very simple and is easily performed. Moreover, by coagulating a tumor mass we at the same time seal up the capillaries and lymphatics in the immediate vicinity, and by this very process, prevent the dispersion of metastases. We do not stimulate the growth of tumor because we destroy it, and any lingering neoplastic cell that has been overlooked or has escaped coagulation by this method is again attacked within a very short time by radium or x-ray or both, depending on the status of the case.

What is the actual technic of the electro-coagulation method? First, is the choice of anesthetic. The operation cannot be done safely under ether, because of the inflammability of this agent. We have used the so-called synergistic anesthesia, morphine and magnesium sulphate hypodermically, with ether and olive oil by rectum with fair success. Another which we have used with some degree of satisfaction is scopolamin-morphin, but the anesthesia of choice is chloroform by inhalation. In the hands of a thoroughly trained anesthetist the dangers are not so great as we are commonly led to believe. In two hundred cases we have not had an untoward result.

The larynx is approached by suspension laryngoscopy. This is a simple procedure easily mastered with some practice and represents the first step in the operation. There have been suggestions of approaching the larynx by other routes, such as, for instance, laryngo-fissure, but I do not believe that this is as satisfactory as suspension. If the growth is of any size there is always the danger of incising the tumor with the ultimate complications already emphasized. Therefore, suspension laryngoscopy is the superior plan by which the larynx may be approached and is the one which we employ in our work.

The larynx exposed, we are now ready to apply the high frequency current by means of a suitable electrode. The free passage of the current through the tissue raises the temperature of that tissue and the degree to which it can be raised is unlimited. One may raise it simply a few degrees or one may take a copper penny and fuse it. The patient is placed on

his back to which is fastened the negative or indifferent electrode interposed by layers of gauze, saturated with salt water, and another electrode, the positive, a small, flat button, is placed in contact with the tumor mass in the larynx. That is the active point; the greatest amount of heat is generated at the application of the small electrode.

Dependent upon the size of the tumor and its consistency is the amount of current necessary and the duration of the time of exposure, and that can only be learned by experience. Usually a current of 1,000 mil. amps. for a period of twenty seconds is the proper dosage. The small electrode is applied to the neoplasm in this manner (illustrating on blackboard) and the current is sent through the growth. The first phenomena are these: the tissue first becomes blanched and this can be seen spreading to the periphery of the growth. Soon the tissue begins to bubble and one can actually see the process of dehydration. It is at this time that the mass is coagulated and if the treatment is continued we carry it to the point of incineration or dessication. In this way you not only accomplish the destruction of the tumor under the eye, but the heat is dispersed beyond where are found the migratory cells, the cells which are usually left when the tumor is incised. The heat acting upon these cells, if it does not actually destroy them, at least inhibits their growth. Twenty-four hours after this treatment the region is subjected to radium or deep x-ray therapy.

As to the ultimate results, I have nothing to say. The oldest case we have from the standpoint of treatment is now fourteen months. Apparently these patients have had permanent cures, but it will take two or three years before we can say whether they are completely cured or not. At least we know that in other fields, especially among the urologists, this method has been used not for a year or two, but for ten. They have carcinomata of the bladder (proved by section to be carcinomata) that have been treated in this way and the patients are walking around perfectly healthy, with only a small scar to show that the lesion previously existed. Such cases have been reported by Kolischer and Corbus of Chicago, Pfahler of Philadelphia, *et al.* Judging from their results in the field of urology and those which we have so far obtained in our

specialty, this method obviously offers something which surgery does not and which I believe radium and x-ray alone have not thus far accomplished.

DISCUSSION

DR. OTTO T. FREER, CHICAGO. The ideal method for the removal of a carcinoma of the larynx or elsewhere is the selective one, that is, the agent used should be able selectively to cause the death and absorption of the cancer cells while leaving the normal tissues invaded by the carcinoma intact. It is obvious that surgical methods, whether by the knife, caustics or destructive heat can not do this. Incapable of such fine distinctive work they have to destroy together with the cancer all tissue about it that is suspicious of even microscopic invasion and how far this has progressed in the depths of the larynx or pharynx is more or less guesswork.

In contradistinction to this uncertainty radium emanation applied in the larynx as recently described by me in the *Journal of the A. M. A.*, Vol. 79, pp. 1602-1606, 1922, offers the one remedy that has true selective power. This has often been vividly demonstrated to me and others where in a larynx with its interior swollen by the chronic inflammatory edema caused by the splinter-like penetration of cancer tissue deep into its flesh, with one or both of its cords immovable, unrecognizable as vocal cords, with the voice hoarse or lost, the normal aspect of the laryngeal interior after emanation irradiation has returned like a revelation of what has been in the past, the cords coming to view, white and normally movable, the natural voice coming back, in fact to see this marvellous betterment is one of the greatest pleasures of practice. This betterment is due to the different vital resistance of cancer cells and normal tissue cells to penetration by radium rays in sufficient intensity. As a rule the cancer cell is weakest and dies under an irradiation that causes mere temporary inflammation, the so-called radium reaction, in the normal tissues. There are unfortunately cancer cells that have almost the resistance to the lethal effect of the radium rays possessed by the normal cells and in such cases only arrest of or partial or temporary retrogression of the cancer is possible. As a rule, given a sufficiently overwhelming dose of emanation the cancer cells melt away, especially where the growth is of the softer, rapidly growing, very malignant kind, while cancers of the horny, hard, keratotic type, apparently the most favorable, may prove hopelessly resistant or require great doses of emanation that create intense reaction.

A great advantage of radium emanation in full dose is its enormous penetrating power so that metaphorically the entire neck is illuminated by the radium rays, including far reaching extensions of the cancer, such as carcinomatous filling out of the pharyngo-epiglottic fold, the base of the epiglottis, the arytaenoids and the aryepiglottic folds or ventricular bands.

Diathermy, to compare it with radium emanation irradiation and as it is explained by Dr. Novak, depends upon heat generated by the high frequency current in

the tissues and heat created in two degrees. In one of these two degrees the heat is pushed far enough to cook, that is, coagulate, the tissues of the cancer and so produce a slough. In the other degree the intensity of the heat is supposed to be just enough to devitalize the cancer cells while sparing the healthy tissues, so accomplishing what radium emanation does. The decision as to the exact dosage of radium emanation is difficult enough. Still more difficult it seems to me would it be to determine the exact degree of heat that would fall short of coagulation and yet devitalize the cancer cells. In diffuse cancers it might be necessary to subject large areas, for instance the whole larynx or pharynx, to at least a second degree burn created in the tissues in order to include in the heat action all suspicious regions. The swelling following such an extensive heating would be apt to make an immediate tracheotomy necessary or would be apt to make swallowing impossible in extrinsic carcinomas. In fact Dr. Novak, in the *Annals of Otology, Rhinology and Laryngology* for 1922, says "that a preliminary tracheotomy is imperative."

As to diathermy carried to the sloughing point, so-called electro-coagulation, it could not be in any sense selective and would destroy normal as well as cancer tissue making a return of cord motion or a restoration of the voice unlikely. For instance, one of my patients, a woman with a schirrus growth that had existed over a year had fixed one cord and made the patient voiceless, had a complete return of her voice with entire disappearance of the cancer and of an already invaded cervical gland, after intralaryngeal radium irradiation. Now, after nearly two years she enjoys perfect health and has a clear, loud voice. To as thoroughly eliminate the cancer electrocoagulation would have had to destroy one-half of the laryngeal interior if the sloughing degree of heat had been generated thus making voice recovery impossible.

As to the use of the selective degree of heat described that is supposed to heat the cancer cells just enough to devitalize them, it will, in my opinion, require a well founded series of laryngeal cancer cases with as good results as are obtainable by radium emanation to give sufficient proof to establish it as a practical and scientific method. Until given this clinical proof the selective action of mild degrees of heat must remain mere assertion.

DR. JOSEPH C. BECK, Chicago: I have been very much pleased with Dr. Novak's presentation of this method of treatment with which we have had some experience. Recently, since he presented his first paper before our Chicago Laryngological and Otological Society I have put it in operation as he has outlined. While I cannot say anything about the ultimate results, I will say that there is a decided and distinct indication for the use of electro-coagulation and I predict for this method better results because it is rational in every way.

The point brought out by Dr. Freer regarding the limitation of this method of treatment is not exactly correct. The electro-coagulation does not stop, unfortunately, where Dr. Novak would like to have it

step; it goes through the cartilage and under, and beyond. It is not in the province of the paper but it is in the province of the discussion to say that he has experimentally treated a number of tonsils by the electro-coagulation method and we have been working at the same time on the same thing and we both have found that there is danger of affecting the blood vessels and other structures beyond the tonsils. Carcinoma is a life and death proposition and one does not care so much about the voice if he saves the life of the patient, so that point of Dr. Freer's is also not important.

So far as radium, x-ray and the ultraviolet light are concerned, we have been working with them ever since they first came into use and we have not a single case that has remained without recurrence. I mean that when radium, x-ray (including the short wave length) or any other radiation method were employed by themselves, the cases always terminated fatally. At times it appeared as though we would meet with an exception. In connection with surgery, both before and after, I think they may be of value. At the same time, I would like to state that I have already published the fact that most of my cases of cures of cancer of the larynx never had any kind of ray treatment. We have seen some good results from laryngectomy and some from laryngotomy. Instead of splitting the larynx in the middle we do a window resection in the region of the growth, coming on to the mucoperichondrium and then with the cautery knife, which Bloodgood and others use so successfully, we cut that growth out widely and then follow with x-ray and radium therapy. I do not mean that there is no place for radium; we use it all the time and will continue to do so. So far laryngectomy and laryngotomy with excision of the growth is the only hope I can see for carcinoma of the larynx, but I think the procedure described by Dr. Novak has a definite place, at least in some cases.

DR. GEORGE W. BOOT, Chicago: I wish to mention a patient upon whom I recently did a hemilaryngectomy for carcinoma of the larynx. The particular point is the anesthesia. The man weighed 112 pounds and we gave three ounces of ether in two ounces of olive oil by rectum before the operation. This was supplemented by a little local anesthesia but not enough to get good anesthesia. The results were ideal. The man kept perfectly quiet throughout the operation; when asked if he had pain he would shake his head. In other words, we had complete analgesia. The patient was up and around the ward the next day.

DR. EDWIN MCGINNIS, Chicago: I think Dr. Novak's presentation is one of the best we have had for several years on this very active subject. It seems to me that carcinoma of the larynx is out of the field of general surgery and should be confined to this specialty. I want to make a plea for laryngofissure. I think we shall soon become sufficiently intelligent to attack this problem at the proper time. If we make an early diagnosis and attack the growth by means of laryngo-fissure I believe we shall get many more cures than we have in the past. I had a case in which I did

the operation Dr. Beck has just described, except that I did not make the window resection, and the man is now breathing through his mouth has a pretty good voice and is still alive today although he was about sixty-six years old at the time of operation.

I recently saw a total laryngectomy performed at a hospital where it seemed a pity to take the larynx out. The growth was situated away up in the arytenoids and it seemed too bad to have the patient go through the tortures of the total laryngectomy. That case I am sure was a perfect one for the method just described by Dr. Novak.

I think any patient who has a husky voice that does not yield to treatment should be suspected either of syphilis or carcinoma and we should go after the case as early as possible to get results. Carcinoma of the larynx is a slow growing proposition. I think there is not much metastasis for I have an idea that the lymphatics are not so active in these cases. This is just an opinion of mine and if I am wrong I shall be glad to be set right.

I would make a plea for laryngo-fissure or the use of the method described by Dr. Novak with the anesthesia spoken of by Dr. Boot.

DR. FRANK NOVAK, JR. (closing): In the point made by Dr. Freer he has evidently confused the two procedures, cauterization and coagulation. Cauterization is the application of superficial heat; electrocoagulation is deep and this brings up the question of the selective action of heat or radium on neoplastic cells. Dr. Freer said that radium has a selective action on the carcinomatous cells, that the carcinomatous cells are more amenable to the action of the ray than others. The neoplastic cell is much more vulnerable to heat than is the normal cell, and by raising the temperature of the periphery, not sufficiently to coagulate normal tissue, we can inhibit the growth of the new cell and in many cases we can destroy it entirely.

THE SURGICAL TREATMENT OF CHRONIC INTESTINAL STASIS*

J. G. YOUNG, M. D.,

PONTIAC, ILLINOIS

The last 25 years have been marked by many advances in our understanding with regard to the cause of disease. We have many examples that might be mentioned as striking, one of which is the tearing to pieces of the composite term rheumatism, the main cause of which is found in diseased teeth, tonsils, sinuses or the prostate.

Owing to the pioneer work of Lane in England, Bainbridge and others in America, including Sloan and Hazen, it has been clearly proven that the gastro-intestinal tract is nothing more

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or less than a myriad of foci of infection. In order to do justice to our patient, surgeons and physicians must realize the human must be well plumbed, just as a perfect residence must have an efficient plumbing plant in order to be sanitary.

The body is practically a hollow cylinder around which is built a house; food must pass through this cylinder unobstructed, regardless of the many side pockets, thus preventing putrefactive changes which produce poisons within the bowel.

Misplaced appendix, ideal kink, duodeno-jejunal kink, kinking at the hepatic and splenic flexures of the colon, kinking at the sigmoid loop and kinking at multiple points with many bands are mechanical changes that must have surgical attention in order to remove the obstructions. A rotating mobile cecum causes most misplaced appendix, the appendix acting as a ligament, twisting the cecum and pulling it downward. Surgery should anchor the cecum in proper position, thus removing the stasis by correcting this kink. Even after an appendectomy these cases can be cured by cutting and covering the evolutionary bands which extend from the ileum to the base of the meso-appendix.

Evolutionary bands at different points along the terminal coil cause ileal kinks. In uncomplicated cases of this kind where the kinking is slight, relief may be obtained by simply cutting the bands transversely and sewing up longitudinally; often broad bands are found giving rise to a very marked stasis.

Following an ileal stasis we often find a duodeno-jejunal kink; the first part of the duodenum is greatly distended, adhesions about the pylorus with kinking obstruction of this part of the alimentary tract as a complication, correction of each kink is done by dividing the bands and placing the upper part of the jejunum against the under surface of the transverse meso colon. When a kinking is found at the hepatic and splenic flexures of the colon, the position of the gut involved should be fixed to the ascending colon just below the hepatic flexure, thus causing a distinct angulation of the large intestine.

Bands about the gall bladder and cecum should be bisected transversely and sutured longitudinally with raw surface turned in.

The removal of intestinal obstruction by surgical means relieves and cures intestinal stasis.

DISCUSSION

DR. E. E. PERISHO, Streator: I think that there are many of us who see intestinal obstruction due to bands of Jackson's membrane. I have never done much work in unhooking the colon or trying to raise the colon but I think many of these things would aid our patients a great deal if we would use them.

DR. H. N. MacKECHNIE, Chicago: There is a group of cases of intestinals tasis in which when we operate we find apparently no pathology to which we can credit the production of the stasis, that is, no pathology, such as adhesions, kinks, bands, Jackson's membrane or neoplasm. In many of these cases we find definite evidence of chronic infections and irritations in the appendix, the gall-bladder, a Meckel's or other diverticulum. As a result of these infections we find a spastic condition in the colon, most frequently in the descending colon, sometimes in the splenic flexure, and frequently in the transverse and sometimes in the ascending colon. Kliener some years ago studied this and called the condition spastic colitis which was later by others declared incorrect. Our clinical work in conjunction with the x-ray reveals that in mild acute or chronic cholecystitis cases, chronic cases of appendicitis or inflamed Meckel's diverticulum we frequently have a mild spastic condition of the colon, most pronounced in the descending colon in which when the pathology is removed the spasticity is cured. The history they give is one of onset of constipation following a mild attack of appendicitis, cholecystitis or diverticulitis. They go on a long course of medication, diet, massage or what not and receive no relief but just as soon as the offending appendix or gall-bladder or diverticulum is removed the patient begins to improve. Some of them will take a little time to get over the condition from which they have been suffering for months or years. They do not all show immediate and definite evidence of improvement. You will find in the course of a few days that the constipation is relieved and on x-ray examination the spasticity is markedly decreased, the haustra are more nearly normal and the barium meal passes through the colon in almost normal period. Furthermore, a follow-up on these cases will demonstrate the permanency of the improvement.

DR. C. C. O'BYRNE, Chicago: I cannot but help think that some of the cases Dr. MacKechnie spoke of as getting relief from appendicitis, Meckel's diverticulum and neurotic conditions were relieved not by the fact that so much disease has been removed but because of the operation. We have all seen cases of this type in our practice. They are benefited from the fact that they have been operated on. A patient was brought to me from out in the country with a diagnosis of chronic appendicitis. Of course, when you are located in the city and a doctor brings in a case of chronic appendicitis you take out the appendix; there is nothing else to do. Two months later the patient came back with a well-developed intestinal

stasis. She had lost very markedly in weight. She had exaggerated peristalsis and almost complete obstruction and the condition had been gradually getting worse. I tried to find out the cause from x-ray examination. I put barium in the colon and it filled up the colon, put barium in the stomach and it filled up. I opened the abdomen just above the internal angle of the old appendix incision and found a carcinoma of the colon about six inches above the caput coli which was just a narrow band. The carcinoma itself was very small, but it had contracted the colon down so that it would not admit an ordinary lead pencil. I resected the colon. The ileum had dilated until it was larger than the duodenum. I did an end-to-end anastomosis and the patient is living and well today after two years. He has gained 20 pounds in weight and is running a large dairy farm near Chicago.

THE CULTS. A SUGGESTION

EDWARD H. OCHSNER, M. D.
President, Illinois State Medical Society.

CHICAGO

For a long time it has seemed to me that something positive and definite could be done, and should be done, to save the laity from exploitation by the numerous medical cults which infest society today. It has occurred to me that the best and simplest way to accomplish this would be to prepare a leaflet or reprint which would in plain language set forth some of the fundamental fallacies of all of the cults and a few of the accomplishments of the regular medical profession and make such leaflet available to all of the physicians of the State. I actually had such a reprint prepared and have tried it out in a sufficient number of cases to satisfy myself that such a method of attack is feasible, and does accomplish a certain amount of good. When a patient asks me what I think of such and such a cult and its methods I no longer waste my time in a lengthy discussion of the subject, a discussion which is apt to leave the inquirer unsatisfied in mind, but hand him one of these reprints, and at the subsequent visit nearly every one of these inquirers has expressed himself voluntarily as much enlightened by the perusal of this reprint and most of them have told me that they never had realized how poorly prepared the cultists were to treat human ailments.

The Council of the Illinois State Medical Society at its last meeting, held in Chicago on September 24, by resolution decided to have what follows reprinted and distributed gratis to

such members of the Society as will write to the Secretary, Dr. Wm. D. Chapman, at Silvis, Illinois, stating the number of reprints they can profitably use and also to keep the secretaries of the County Medical Societies supplied with such reprints for distribution among such members as may desire them. My suggestion to the Council was that it be published by the Society, in the name of the Society, without my name appearing as the author. My suggestion to the individual members of the Illinois State Medical Society is to get say five or ten copies of this reprint from either the State Secretary or the County Secretary and hand them out judiciously to such patients as make inquiry about one or the other of the cults. Five or ten copies will give each a chance to try it out and also an idea as to how many he can profitably use in the course of a year. If they prove valuable I feel sure the Society will be glad to supply any reasonable number of copies. This method is advised rather than general distribution, because when a patient is interested enough in a subject to make inquiry he wants a definite answer and his mind is open to reason and suggestion and because general distribution is apt to smack of propaganda and place the profession in the light of being on the defensive in addition to the fact that not one in 20 leaflets distributed at random is ever carefully read. I believe that this method of distribution would accomplish the greatest amount of good at the smallest cost.

THE PROPOSED REPRINT

SOME FACTS WORTH KNOWING

There are today over twenty-five cults that are advertising themselves as competent to treat the sick. None of these possess adequate knowledge to be safely entrusted by the public to render this important service. Many of the members of these cults are entirely lacking in even the most rudimentary education and utterly ignorant of the fundamental branches which are necessary to understand the problems of health and disease. In fact, one of the colleges which pretends to educate the members of one of these cults advertised in its circulars that no special education was necessary and this particular college has actually granted hundreds of diplomas to artisans, laborers and others who did not even possess a grammar school education. In addition, many of them have been granted diploma-

after attendance in this particular college of from a few weeks to three months. The above statement is made because many people have the erroneous impression that these cultists are really highly educated and well trained before they take up the study of the particular form of healing which they profess to employ.

Many of these cultists are circulating the statement that the regular medical profession is reactionary and unwilling to accept new truths, while the actual fact is that medical men all over the world welcome new and proven medical facts with open minds at all times. Of course, the medical profession always insists that a new remedy must be able to show results—it must appeal to reason and experience. The medical profession has at all times looked askance at cure-alls, but it has taken up with x-ray, antitoxins, antiseptics, asepsis and the innumerable new remedies of proven worth. Two of the most popular cults at the present time are placing great emphasis on mechanotherapy, utterly ignoring the fact that Peter Hendrick Ling of Sweden as long ago as 1814 developed a complete system of mechanotherapy known as Swedish movement and massage which has for many years been adopted and employed in their practice by all up-to-date physicians. Physicians, however, realize fully that such treatment is applicable in only a limited number of cases, while the cultists look upon their manipulations as cure-alls.

It is time that the laity be given the plain facts in reference to all of these matters in order that they may be saved much unnecessary suffering and severe damage to their health. In order to accomplish this it seems desirable to make a study of the mental attitude of society with reference to the healing art.

For the purpose of this study, society may be divided into three classes: First, the class that never tires of being humbugged and fooled; second, the class that is not really happy unless it has been stung once; and, finally, the class that practically always tries to play safe. The same classification holds good in finance or business. I estimate that about 10 per cent of our citizens will buy every new gold brick that is offered them. As soon as they get through paying for one, they buy another, and they keep this up as long as they or their money lasts. By the same token they will buy every new patent medi-

cine that is sufficiently advertised; they will take up with every medical fad that comes out; they will go to every new advertising quack that comes to town. They rarely ever have any money and they do not amount to much as citizens. That 10 per cent is practically hopeless. They do not want to be saved from physical and financial ruin, and they cannot be saved.

About 40 per cent of our people are not quite happy until they are stung once. They buy a gold brick once, and then they are through. They remind me of my son on his third birthday. His mother gave him a birthday cake with three little candles. These were lighted and placed near his plate. He kept putting his finger nearer and nearer to the lighted candles. His mother kept warning him that he would burn his finger. Finally, after the fourth warning, the little fellow said, "but, mother, I want to find out how it feels." Now, this class of our population wants to know how it feels to be stung once financially and once by quackery. After they have been trimmed once in each line, they will go to regular physicians and to responsible financial institutions. This 40 per cent is worth saving and worth protecting.

About 50 per cent of our people always try to go to reliable business men for advice, to reliable bankers when they have funds to invest and to reliable practitioners when ill.

The first 10 per cent. cannot be saved, and there is little use in trying. They are not happy unless they are buncoed. The other 90 per cent are worth saving and usually can be saved from serious financial or physical damage; but, if these cultists are permitted to acquire the sanction and approval of the state, how can the 90 per cent know who are dependable practitioners of medicine and who are quacks? I wonder how many have thought of the great importance of this point. The state licenses our state banks, and it says to the people: These banks are periodically inspected and are reasonably safe. The state licenses physicians to practice medicine. It tells the people that these men have spent a certain amount of time and effort in acquiring certain knowledge, have passed a rigid examination as to their qualifications, and that they are reasonably dependable.

Now, what do these cultists ask for? They ask for the same stamp of approval by the State,

so that the lay individual is unable to differentiate between the true and the false, the reasonably dependable and the absolutely undependable.

These cultists remind me of the cuckoo and the cowbird. By hard work and study the medical profession has made an enviable reputation and has secured the confidence of the people. The quacks and cultists want to acquire that reputation and confidence without first earning it. They want to get the good repute of the medical profession without going through the long years of toil such as medical men have had to go through. In other words, they want to appear as the real goods when, as a matter of fact, they are only counterfeits. They want certain rewards without first earning them. In plain language, they want someone else to do the hard work for them. The same thing is true of cuckoos and cowbirds. On my little farm in Wisconsin we watched with much interest a pair of song sparrows build a nest, and just when it was finished Mrs. Cowbird came along and laid an egg in it. When the song sparrows came back and saw what had happened they tried to throw the egg out, but failing in this, they covered up the first nest and egg with a new nest. When that nest was ready, Mrs. Cowbird came along again and laid another egg in it. The song sparrows then built another nest on top of the second and by this time the Cowbird either got tired or ran out of eggs.

Let us take a lesson from the song sparrows. Let us keep right on the job and expose these cultists until they either get tired or run out of their eggs of bunk and propaganda. If they can be kept from being recognized by the law-giving body of this State, they will soon have to go out of business because the 10 per cent of the people that are gullible will not be able to feed all the cultists. They will die off from starvation or be forced to return to useful occupations because of their multiplicity and because of their unreasonable claims and unfair methods.

There is a man in San Francisco who claims that by putting a drop of blood on a blotter, then putting this blotter into a machine, he can make an accurate diagnosis of the disease of the individual from whom the drop of blood has been taken. One of his disciples goes him one better. He claims that he can take the signature

of a deceased individual, put it in a machine and tell definitely what caused the death of the individual in question. Their claims are so utterly ridiculous that at least 90 per cent of the people can and do see through them if once cognizant of the actual facts.

There are many points of similarity between some of the medical quacks and certain financial wild-cat promoters. However, the former only too often make widows and orphans, while the latter, after all, only rob them. Both frequently exchange their lists of dupes or sell them outright when they can no longer exploit them.

Between the years of 1715 and 1735 LeSage wrote "Gil Blas," a work that made him famous. In it he describes tricks and subterfuges which make one think that he is writing of conditions today. The attempt to capitalize the misfortunes of the sick is as old as human ingenuity and human cussedness.

Eighty-one years ago, Oliver Wendell Holmes delivered two lectures before the "Boston Society for the Diffusion of Useful Knowledge," entitled "Homeopathy and Its Kindred Delusions." If we would substitute the word "Chiropractics" for "Metallic Tractors," "Christian Science" for "Homeopathy," other fads now prevalent for "Tar Water," "Weapon Ointment," and "Sympathetic Powder," the whole essay would be admirably applicable today. At one time, there were in Chicago four flourishing homeopathic medical colleges, with over 1,000 students in attendance. Today, there is no such college and not one student. That system was built on false premises, it was built by a monorail mind, and it could not endure the test of time. You cannot cure all of the varied ills of the human body by one formula. It is stupid to believe that you can, and, if these cultists and quacks are not recognized by the State they will go the way of Homeopathy, Perkinism, Weapon Ointment, Sympathetic Powder and Tar Water, just as surely as the sun will rise tomorrow.

I believe most laymen who have not already read Oliver Wendell Holmes' essay on Homeopathy would find the same intensely interesting, very instructive and most entertaining. It is to be found in his volume of medical essays.

Lest those men who have graduated from so-called homeopathic medical colleges should be

disturbed by this article let me say that it has been my privilege to know many homeopathic physicians, many of them splendid men and excellent physicians, but I have never known one who practiced simon pure homeopathy according to the tenets of the founder of that cult. They were good physicians just about in proportion as they abandoned homeopathy and learned and practiced regular medicine.

The regular medical profession never had a more severe critic than was Oliver Wendell Holmes, as one may easily convince himself by reading his essay on the "Contagiousness of Puerperal Fever," and his poem on the "Stethoscope." Oliver Wendell Holmes made this important distinction: He had constructive criticism for things that were worth saving and could be saved, and particularly for the regular medical profession, for, while he recognized its many shortcomings, he also recognized its great possibilities. He had destructive criticism for everything that was false and absurd. His essay of 1842, just referred to, had much to do with the ultimate passing away of homeopathy, and his prophecy contained in that work seems almost inspired in the light of recent developments. The cults of today will all go the way of homeopathy sooner or later; but, in the meantime, if we can prevent their recognition, we will hasten their demise and prevent untold injury to the public.

Here are three postulates which I have worked out with considerable care.

Next to the stability of government, honesty of administration and the general intelligence of the people, the welfare of the nation depends more upon the quality of medical service which is rendered to the people than upon any other one thing.

The longevity, health, efficiency and happiness of the people depend more upon the integrity, ability and industry of its medical profession than upon anything else.

The allied professions of medicine, dentistry and pharmacy are today giving the American people the best all-around medical service that any nation has ever had in the history of the world.

If the above three postulates are true, and I firmly believe they are, then it is the plain duty

of every physician to see to it that the present standard of medical efficiency is maintained, and the part of wisdom of every layman to encourage the regular medical profession so that it can maintain this standard and gradually make further improvements in order that the citizens of this country may enjoy the greatest possible degree of health.

I remember the day in the country in Wisconsin when diphtheria wiped out nearly every child under 15 in the adjoining township. There were twenty-two deaths from diphtheria inside of four weeks. That was before the time of antitoxin and before the time of private funerals in deaths from contagious diseases. The death rate of diphtheria per one hundred thousand of population in Chicago in 1880 was 290, while in 1920 it was only 23. Have the cults had anything to do with the reduction of the diphtheria mortality? Could their followers successfully treat diphtheria—any of them?

Cholera, formerly one of the worst scourges of humanity, has been practically banished from the civilized world. By whom but the medical profession?

Typhoid fever, as recently as 1891, claimed by death 1,997 individuals in Chicago, with a population of about 1,000,000. In 1922, with a population of nearly 3,000,000, it claimed only thirty-one, and these were practically all imported cases—a saving of 5,960 human lives in one year in one city alone. Who brought about this change in the death rate from typhoid? Chiropractors, osteopaths, or any of the other cultists? Although it meant a loss of millions of dollars in income derived from treating patients afflicted with this disease the organized regular medical profession of the city of Chicago unselfishly, actively and energetically came forward and insisted upon a pure water supply which resulted in the prevention of much illness and the saving of many lives. Can you point to any other group of men in the city of Chicago who have done that much for their city? Find them for me if you will.

Malaria, which made the southern part of our State almost uninhabitable for many years and drove many of its best citizens into the hilly, well-drained parts of Wisconsin, is almost unknown today.

Yellow fever has been almost wiped out of the western hemisphere by such men as Drs. Gorgas and Reed.

Tuberculosis is rapidly on the decrease. Tuberculous joints and tuberculous glands have greatly decreased in the Mississippi Valley in recent years. Twenty years ago there was scarcely a week but that I operated on at least three cases of tuberculous joints or tuberculous glands in my clinic. Today I do not operate on two a month. Why? Because the medical profession of this section of the country has insisted upon the employment of reliable prophylactic measures. I understand that in England, where the medical profession is crushed to the ground by all forms of restrictions which interfere with the initiative and enthusiasm of its members, tuberculosis of the joints and glands is actually on the increase.

In 1850, or seventy-three years ago, the life expectancy in the registration area of the United States was 35.3 years. Every child born in that area had the prospect of living 35.3 years. Today that life expectancy is over 50 years. What has brought about this great increase in the average length of life? It was accomplished by the hard work of the medical profession, with the cooperation and assistance of the red-blooded, progressive, sensible men and women of this country.

That is not all.

It is not only a question of length of life. The general health of the American people has increased to even a greater extent. Thirty years ago every second or third woman in the community was more or less of an invalid on or before the age of forty. Practically all of them had been confined by midwives. Many of them suffered from procidentia, or at least from unrepaired lacerations. Today, because of better midwifery, fewer lacerations and infections occur and because of gynecological surgery, most of the lacerations which do occur are repaired and, as a result, this sort of invalidism is virtually wiped out. These are but a few of many similar accomplishments. The medical profession has literally, actually pushed back the infirmities of old age, so that people not only live fifteen years longer on the average, but they live healthier and happier lives.

2155 Cleveland Ave.

CHOLECYSTITIS AND CHOLELITHIASIS DURING PREGNANCY AND PUERPERIUM

HARRY J. ISAACS, S. B., M. D.,

Associate in Medicine, Rush Medical College; Examining Physician, Chicago Winfield Tuberculosis Sanatorium; Associate Attending Physician, Michael Reese Dispensary.

CHICAGO

Gall bladder disease is of common occurrence during pregnancy and the puerperium. It is a well known fact that biliary lithiasis occurs more frequently in women, especially those who have borne children and who are past the middle stage of life. Naunyn states that 90 per cent. of women with gall stones have borne children. Cyr has published the following statistics: In 51 women with gall stones, hepatic colic has been noticed eleven times during pregnancy, four times after miscarriage and thirty-six times after accouchement. The period between the accouchement and the attack of colic varied from one day to a month in twenty-two cases, and from one to twelve months in fourteen cases. According to the statistics of Déléage of Vichy, hepatic colic figures as follows: Fifty-nine times during pregnancy and forty-five times after accouchement. De Lee says pregnancy is a factor in the development of gall stones and it is not rare that the gravida have attacks of biliary colic. Seventy-five per cent. of gall stones occur in women and in 80 per cent. of these the symptoms develop during pregnancy (Torrance). According to Peterson 84 per cent. of 135 women with gall stones had borne children. Of 1244 women operated upon for uterine myomata at Mayo Clinic, 92 or 7.1 per cent. had gall stones. Kehr reports that out of 655 patients laparotomized for gall stones, 536 were women and 119 men.

Etiology: Whether hepatic colic appears during pregnancy or in the puerperium, it is evident that both pregnancy and the puerperium play an important role in the pathogenesis of gall bladder disease. Among the factors are:

1. Cholesterin diathesis.
2. Biliary stasis.
3. Inflammatory conditions of the biliary tract.

Pregnancy is said to favor stagnation of bile in the ducts and thus bring about the formation of calculi. According to Heidenhain pregnancy causes a hindrance in the play of the diaphragm.

This is also true of the abdominal muscles which contract feebly, thus causing the bile to be inefficiently expelled and remain stagnating in the gall bladder. The cholesterin diathesis or a hypercholesteremia plays an important factor in the production of calculi. The inflammatory conditions of the biliary tract may be primary or secondary to some local or general condition. Here, one deals with the bacteriological causes, chief of which being the colon bacillus, typhoid bacillus, Staphylococcus, etc.

Finkelstone¹ claims that pregnancy favors hepatoptosis and nephroptosis, a condition which favors stagnation of bile.

Symptoms: The symptoms vary according to where the pathology lies in the gall bladder tract; i. e., acute cholecystitis; cholangitis; cholelithiasis; stone in the common duct, cystic or hepatic duct. These conditions occurring during pregnancy or in the puerperium do not differ from the ordinary forms and thus should be easily diagnosed. *Hepatic colic*, however, is one of the most common conditions. Berkeley and Bonney claim that in 30 per cent. of the cases the attack occurs in the first five months of pregnancy and that attacks are comparatively common in the primipara. The chief symptoms, however, are: 1. biliary colic; 2. jaundice; 3. marked tenderness in the right upper quadrant of the abdomen.

Hepatic colic is characterized by a sudden onset of severe pain, radiating in several directions to the epigastrium, right hypochondrium, right shoulder and around the umbilicus, occurring usually a few hours after a meal. The pain becomes more severe in character, may be continuous or intermittent, lasting from a few minutes to several hours. Frequently there is no temperature. Vomiting, which occurs, is at first alimentary; later bilious. Bilious vomiting does not occur if the calculus occludes the common duct, due to the fact that the passage of bile into the intestine is interrupted. No decoloration of the feces occurs when the calculus is in the cystic duct. However, the clay colored stools occur in common duct obstruction, this being also due to the absence of bile. The attack of colic ceases suddenly. Jaundice may be transient or continuous. The transient type of jaundice may be diagnosed from the subicteric hue of the

conjunctiva. Associated with the continuous type of jaundice one finds 1. clay colored stools; 2. bile in the urine; 3. bradycardia; 4. icterus; 5. itchininess of the skin; 6. mental symptoms and 7. decreased coagulability time of the blood. A most important finding is marked tenderness in the right upper quadrant of the abdomen which is aggravated (pain) on deep inspiration, especially when the fingers are hooked up deep beneath the right costal arch below the hepatic margin. This may be associated with localized tenderness and rigidity of the abdominal wall. One must remember that the seat of the trouble may be the cystic duct, in which case there will be no jaundice. Finally, we must remember that attacks of pain, mistaken for hepatic colic without icterus, may be due to cholecystitis. Some of the accompanying symptoms may be 1. vertigo, 2. syncope, 3. indigestion.

The finding of gall stones in the feces usually clinches the diagnosis. X-ray may show stones in the gall bladder; 2. enlarged bladder or 3. a typical gall bladder seat in the stomach or duodenum.

Diagnosis: Too often the pregnant woman complains of these symptoms which may be typical or atypical in character, which entirely escapes the obstetrician's notice. These conditions are frequently mistaken during pregnancy, for want of clear symptoms, for a miscarriage, ectopic gestation or appendicitis, and after delivery for pyelitis, lead colic, renal colic, peptic ulcer and peritonitis. The diagnosis during pregnancy or after delivery should be easily made.

Classification: According to Dieulafoy² there are three varieties of hepatic colic.

1. A young girl who has never had hepatic colic marries; during her first pregnancy hepatic colic appears, and reappears during subsequent pregnancies; but never apart from the puerperal condition.

2. A woman who has never had hepatic colic, either as a girl or later during pregnancy, is seized with hepatic colic some days or weeks after delivery. The colic recurs after subsequent deliveries and is never present except at this time.

3. Hepatic colic appears, either during pregnancy or after labor, and again later, at indeterminate periods, when the woman is not pregnant.

1. Finkelstone: Cholelithiasis Complicating Pregnancy. Am. Jour. Obst. 74: 818. Nov. 16.

2. Dieulafoy: Text Book of Medicine, 967.

Prognosis:

1. Effect of Hepatic Colic on Pregnancy.

Dieulafoy³ states that severe and repeated attacks of colic do not interrupt pregnancy and that jaundice, which in many cases follows hepatic colic, is not dangerous to the pregnant woman. No injury to the liver cells is produced. However, permanent obliteration of the common duct does cause pathological changes in the liver cells. Jaundice due to a stone is not, as a rule, dangerous to the pregnant woman.

Prognosis in regard to the attack is usually good, and usually ends in recovery, though complications such as perforation of the bile ducts; 2, intestinal obstruction; 3, peritonitis; 4, empyema of the gall bladder; 5, biliary fistula; 6, persistent obliteration of the bile ducts; 7, infection of the biliary passages do occur.

Hepatic colic may be due to acute cholecystitis. This inflammatory condition may be self-limiting in character.

Therapy: The therapy of cholecystitis and cholelithiasis in pregnancy does not differ from the nonpregnant condition. However, in view of the fact that there are *three varieties* (Dieulafoy) of hepatic colic, it is deemed advisable to first give the patient a *medical* chance before surgical interference is introduced. In view of the fact that during pregnancy cholecystitis and cholelithiasis cause little or no damage to the liver cells and in view of the fact that these attacks may clear up spontaneously (see classification) one cannot speak too strongly against immediate operative procedures. Among the medical agencies used are 1, repeated non-surgical drainage of the gall bladder, 2, bland diet (avoiding fats, fried foods, acids, spices and condiments), 3, medication, such as sodium phosphate effervescent, urotropin, sodium salicylate, 4, alkali mineral waters.

Of especial importance is the fact that morphin in large doses given for pain does not apparently affect the fetus in utero.

The indications for operative interference are:

1, repeated severe attacks of hepatic colic; 2, persistent jaundice; 3, perforation and rupture of the gall bladder; 4, peritonitis and 5, empyema of the gall bladder.

Pregnancy does not contraindicate operations upon the gall bladder or bile tracts, but opera-

tions should be postponed, if possible, until after delivery, or at least as late in pregnancy as possible.

Report of Cases:

CASE 1:

History:

E. I., aged 23 years, married, female, primipara, gave a negative family history and a previous personal and menstrual history which had no bearing on the case. Her history dates back to her seventh month of pregnancy when she was suddenly seized with a slight pain in the epigastrium which radiated to her back midway between her shoulders. This attack lasted only for about ten minutes, was not associated with nausea or vomiting and played no relation to the intake of food. These attacks, during pregnancy, became more frequent and more severe in character, lasting at times two and three hours and occurring five or six times during the month. At no time was nausea, vomiting or temperature present. After a normal delivery the attacks became more severe in character, lasting six or seven hours and occurring two or three times a month. One month after delivery the patient had a series of seven or eight attacks, one more severe than the other, lasting from two to eight hours, associated with a *subicteric* hue of the abdomen and conjunctiva; 2, bradycardia (pulse varied from 40 to 60); 3, bile in the urine; 4, clay colored stools; 5, and marked tenderness in the gall bladder region. No temperature. The leukocyte count was 12,000. This condition lasted for a few days and cleared up spontaneously. Medical therapy and non-surgical gall bladder drainage were instituted. The bile showed a slight trace of mucus, with no pus, blood, calculi or bacteria present. X-ray and fluoroscopy of the gastrointestinal tract, including the gall bladder, revealed no abnormal findings. Since this series of attacks she has been feeling well and complains of no symptoms.

Diagnosis:

Acute cholecystitis with obstruction (evidently calculous) of the common duct, complicating pregnancy in a young primipara.

CASE 2.

History:

H. B., aged 21 years, married, female, primipara, also gave a history of sudden onset of severe pain occurring in the epigastrium and radiating to the back during the sixth month of pregnancy.

These attacks usually came on one-half to two hours after eating and were associated with vomiting which caused relief. During her seventh month of pregnancy the patient had two or three attacks, and at the ninth month, three attacks of more severe pain, lasting three or four hours and always associated with nausea and vomiting. She gave birth to a normal female child and was then referred to me by Dr. A. H. C. Goldfine, because of the recurrence of the attacks, which became more frequent and severe in type. Her previous menstrual and family history is of no importance in this case.

3. Dieulafoy: Text Book of Medicine, 968.

Physical Findings: Pulse, 84; respiration, 20; temperature, 98.6° F. Heart and lungs negative. Slight subicteric hue to the conjunctiva. Marked tenderness in the right upper quadrant.

Laboratory Findings: Urine contained a trace of bile with a sugar reduction, evidently due to milk sugar. Gastric analysis and stool examination were negative. Fluoroscopy of the gastro-intestinal tract, including the gall bladder, revealed nothing of importance.

Diagnosis:

Acute cholecystitis complicating pregnancy in a young primipara.

Conclusions:

1. Gall bladder disease is of common occurrence during pregnancy and the puerperium.

2. Among the etiological factors are: 1, cholesterin diathesis; 2, biliary stasis; 3, inflammatory conditions of the biliary tract.

3. Gall bladder disease confused with abortion, ectopic pregnancy or appendicitis during pregnancy, and after delivery with pyelitis, lead colic, renal colic, peptic ulcer, peritonitis and all other conditions causing acute abdominal pain.

4. Classification of hepatic colic by Dieulafoy.

5. Hepatic colic is not dangerous to the pregnant woman.

6. The institution of medical care first, with the hope that spontaneous relief may be obtained before operative interference is instituted.

7. Pregnancy does not contraindicate operations upon the gall bladder or bile tracts.

8. Pregnancy is an important factor in the development of gall stones.

9. Acute cholecystitis and cholelithiasis occur quite frequently in young primiparae.

5 South Wabash Avenue.

THE PRESENT STATUS OF DEEP X-RAY THERAPY*

B. C. CUSHWAY, D. D. S., M. D.

CHICAGO

Since the introduction of the x-rays as an agent in diagnosis and therapy, we have seen many changes in the apparatus and technique used. Step by step, we have gradually improved our methods, in almost direct proportion to our knowledge of the effects produced in the tissues by the rays from the x-ray tube. It is a question whether our results obtained in therapy have kept pace with our improved methods of working.

A brief review of conditions under which the

early workers in x-ray therapy worked may be interesting. We find that in the period between the discovery of x-ray and the years 1902 and 1903 there was considerable discussion as to the relative value and efficiency between the static machine and the induction coil. There was much difference of opinion as to whether the static machine was more liable to cause injury to the tissues and especially skin burns, than the coil and vice-versa. In a paper published by Codman in the *Philadelphia Medical Journal*, 1902, a comparison of burns caused by the two different forms of apparatus was recorded. Williams, of Boston, in a paper published in 1902, commends the static machine very highly for therapeutic purposes, whereas the European workers of this period were ardent supporters of the induction coil. The importance of the above is to show that the early workers did not seem to appreciate the fact that the differences in therapeutic effects were due more to changes in the energy given off by the x-ray tube, these changes being those of quantity and quality of radiation given off by the tube rather than differences in type of apparatus.

The technique as followed by workers of this period varied considerably. Kienboch, in the *Interstate Medical Journal*, 1902, advised the use of a coil of 20 to 30 cm. spark length, using a medium soft tube at a distance of 15 to 20 cm. target skin distance, estimating the output of the tube by fluoroscopying the thorax of a medium size man, selecting that tube which would give a good picture on the screen at a distance of 60 cm., length of exposure 5 to 20 minutes, the average normal exposure time being 20 minutes. The effect on the skin from this dose was practically the same as we now estimate as our 100 per cent. skin dose, that is, exfoliation and an erythema lasting a few days. This effect was noted in from 10 to 15 days after treatment. Williams, of Boston, advised the use of a tube of very low vacuum, varying the quality of light by multiple spark gaps, at a distance of 10 to 15 cm. focal skin distance, exposure time not exceeding 10 minutes. Williams also introduced a protective device consisting of a box enclosing the x-ray tube, painted on the inside with several layers of lead paint, with an opening of 5 cm. in diameter in the side, in which diaphragms of sheet lead of various sizes could be inserted. In this, we see an analogy to our present day protection for our

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tubes in our high voltage therapy. Williams recommended the use of a static machine. Schiff and Freund, in 1898, advocated the following technique: a coil of 30 cm. spark length with a primary current of 12 volts and 1.5 amperes, local distance 15 cm., gradually decreasing the distance to a minimum of 5 cm., three exposures given with time gradually increased to 15 minutes.

At this early date, we find definite attention paid to the quantity of current used, the quality of the tube used, the distance of the target to the skin, and the length of time of exposure. Comparing their equipment and technique with our present day conditions, we have reason to believe that the penetrating quality of rays produced in tubes at this time must have been very low, also very far from being anything of a standard quality. Those of us who have worked with static machines, induction coils, and gas tubes, are only too well acquainted with the difficulties met with in attempting to maintain any standard degree of quality of radiation, and also that we knew very little of depth effect or dosage obtained. This was true even with our present more efficient equipment to within a very short time ago. With the advent of the sphere gap, high capacity Coolidge tube, and iontoquantometer methods of estimating quantity of radiation carried to certain depths, we are able to work at this time with a considerably greater degree of certainty as to dosage. However, when we review the literature of the old days, it is surprising to note the many good results reported. In the light of our present knowledge, it would almost seem an impossibility. Freund, in 1900, advocated the use of x-rays in:

- a. Mycotic dermatoses.
 - b. In affections of the skin, where removal of the hair is of importance to the cure.
 - c. In affections where its use was empirical.
- Pusey, in 1903, recommends the use of x-rays for:

1. Treatment of skin conditions, where it is necessary to remove the hair.
2. The production of atrophy in size or functional activities of the sebaceous glands.
3. The production of atrophy of the sweat glands.
4. Treatment of bacterial diseases of the skin.
5. Stimulating the metabolism of the skin.
6. The destruction of tissues of low resistance,

without the destruction of the healthy stroma, as in the treatment of malignant diseases.

7. The anodyne effect.

It will be noted in the above that practically all indications were for the treatment of superficial conditions in the skin, except number 6 and in some cases number seven, where the application is advised for the treatment of malignancy. This is probably one of the most interesting indications for its use in the light of our present day knowledge.

Listed with malignancy, we also find tuberculosis, pseudoleukemia, and leukemia. No doubt we will all agree as to the usefulness of the x-ray in the treatment of the superficial skin lesions and benign lesions both superficial and deep. It is interesting to note the results obtained at this early date in the treatment of malignancy. Stenbeck demonstrated December 19, 1899, what he claimed to be the first case of malignant disease treated by x-ray. It was described by him as a cutaneous carcinoma. In 1900 several cases of carcinoma of the skin were reported treated with very good results. Johnson and Merrill, in 1900, reported several cases. In this country we find the names of Williams, Beck, Allen, and Duncan, in England, Taylor and Ferguson, and in other parts of Europe, Sedderholm, Stenbeck, and Scholtz, listed as reporting cases of this nature. A summary of these cases shows 77 per cent. of skin carcinoma cured after a period of from 12 to 15 months. We find reports of the treatment of carcinoma of the breast, dating from as early as 1897. Hopkins, in the *Philadelphia Medical Journal*, 1901, reports treatment of a primary carcinoma of the breast, which, after 32 treatments, was apparently cured. Also the treatment of an ulcerating carcinoma of the breast, after treatment of which, there was noted disappearance of pain and odor, with a decrease in size of tumor mass. Soiland reports the treatment of a carcinomatous ulcer of the breast, which healed after six weeks of treatment. These cases were all primary breast carcinomas. Pusey reports the treatment of a case of post-operative recurrent carcinoma of the breast, treated with favorable results in 1901. Johnson and Merrill, in 1902, report a case of advanced carcinoma at root of tongue, lower jaw, and neck, which, under x-ray treatment, became entirely well. Skinner, in 1902, reports 5 cases of intra-abdominal carcinoma treated with x-rays; in two of these, the

growths became smaller; in two others, constitutional improvement was noticeable; in the fifth there was no apparent effect. Stuver, in the *Cincinnati Lancet Clinic*, 1902, reports the treatment of a case of inoperable carcinoma of the uterus with very marked improvement. Kirby, in 1902, reports the successful treatment of a round celled sarcoma in the neck.

It will be seen then from a review of the literature, that at least a fair percentage of good results were obtained with the weak, unstandardized radiation available at this early time.

Improved Equipment and Technique. At the present time, we have better equipment, more perfect tube conditions, better understanding of proper filtration and of the physics involved. With better knowledge of the effects of the tube distance, size of field, effects of hardness of the rays, together with the more penetrating rays available, especially with the 200,000 volt transformer, we should certainly expect better results. Furthermore, having the ability to estimate our depth effects by means of the iontoquantometer and ionization measurements, more accurate dosage can be obtained. In general, I think we do feel fairly satisfied with our results in the chronic superficial skin lesions, also in the treatment of the parasitic skin lesions, such as ring worm and sycosis. To these we must add the treatment of the glandular hyperplasias, such as tuberculous adenitis, Hodgkin's disease, persistent thymus, hyperthyroidism, disturbances of ovarian function. Diseases of the blood-making organs, such as splenomedullary leukemia, basal cell epitheliomas, uterine fibromatas, and keloids can be included. Recently we have added a few lesions to the list of benign conditions, where we feel at least some results are obtained with the use of x-ray therapy. Of these may be mentioned selected cases of hypertrophy and infection of tonsils, hypertrophy of the prostate gland, kraurosis vulvae, otosclerosis, influence on blood clotting time by raying the liver and spleen areas and treatment of the ovary for hypo-activity. Thaley, of Germany, reported from 35 to 37 cases improved out of 55 treated for cessation of the menstrual function. While in some of these conditions, namely, hyperthyroidism, menorrhagia, fibroids of the uterus, tonsil conditions, etc., there may be some argument as to the value of x-ray therapy, I think those of us who see the effects produced in these cases, realize that our results are as good, if not superior, to other methods. It

remains for us then, to convince the unbelieving. However, it is in the treatment of malignancy that we see the greatest interest at the present time in the application of deep therapy. When we consider the results obtained by the early workers, even in the treatment of malignancy, with their meager equipment and technique, we feel there must be some element entering into the application of x-rays other than the mere factors of equipment and technique. Furthermore, that this element must have been the personal ability, serious attention to detail, and knowledge of the work to be done. We must realize that the mere possession of modern equipment and knowledge of technique will not obtain good results without the experience necessary for this work. Also, one must have a knowledge of the principles involved. A very important item is a proper conception of the histology and pathology of the tissues to be treated.

A brief report of a few cases treated with 200,000 volt apparatus might be in order. The x-ray apparatus used was operated under the following conditions: 210 K. V., 50 cm. focal skin distance, $\frac{3}{4}$ mm. copper filter, 1mm. Al. filter, 5 M. A., through the tube, size of field, 15 cm., 124 minutes time required to produce skin erythema accompanied by epilation. With these conditions, it was found that 40 per cent. of the radiation was carried to a depth of 10 cm. In the treatment of all malignant cases, the fields were so arranged that 110 per cent. of the surface dose, as near as could be estimated, was carried through the malignant area. The following cases have been treated, under the above conditions:

1. Four cases of esophageal carcinoma in the lower portion of the esophagus, the amount of involvement of the esophagus varying from two to three inches in length, with fairly large filling defects shown with the opaque meal, and in one case, almost total obstruction. In addition to the application of the x-rays in these cases, 50 mgms. of radium was applied directly to the malignant area inside the esophagus for an average of 1200 mg. hours. The x-ray applications being started the day following the application of the radium, and the same dose given as though no radium had been applied, that is, 110 per cent. of the surface dose was carried through and through the malignant area. All four of these cases show definite improvement, can take food freely, have gained $\frac{1}{2}$ weight, have no pain, and feel comparative; well.
2. Two cases of primary carcinoma of the pelvic viscera were treated; one with 50 mgms. of radium, applied locally, was given the same dosage with x-ray as though no radium had been applied. The results were excellent for a time, patient gaining in weight

and general well being, all trace of malignancy disappearing. Patient returned after six months' time, with a very definite recurrence, and is now under treatment with x-ray alone, with a very bad prognosis. The second case had 100 mgms. of radium applied to the cervix of the uterus and the x-ray dose slightly reduced to compensate for the radium. This case is doing well so far, but time is too short since treatment to be sure of results.

3. A third pelvic case was treated for carcinoma recurring two years after operation, recurrence was at the left side of the vaginal stump left at operation, and was about the size of a fairly large grapefruit. The tumor was noticed by the patient externally for about six months, and steadily increased in size. One hundred and ten per cent. of the surface dose was passed through and through this mass, with complete disappearance of this growth at the end of one month. The patient is now comparatively well at the end of six months, no sign of recurrence at this time.

4. Two cases of recurrent carcinoma of the breast have been treated with excellent results so far.

5. One case of primary carcinoma in the mammary gland, size of a hen's egg, which disappeared three weeks after treatment. The treatment was given six months ago, with no recurrence as yet.

These few cases are cited, simply to show that we are able with our present equipment and technique, to cause at least temporary relief, in a fair percentage of malignant conditions. These results agree fairly well with the cases reported by a large number of workers in this field. I think we can feel that while perhaps we may not be able to cure malignancy, we can at least do as well or better than with other methods of treatment. There is room for considerable improvement, perhaps, in our results in the treatment of malignancy.

With the improvement of the x-ray tube, we thought by raising the voltage to 200 K. V. or better, to be able to produce x-rays comparing favorably with the penetrating gamma radiation of radium. From experimental work done comparing the relative penetration of x-rays produced at 200 K. V., it would seem that we have very nearly attained our object. There is only a difference of a little more than 2 per cent. in favor of radium, when amounts of radium are used, which it would be practical for the average doctor to use. We can consider radium as a very valuable adjunct to the x-rays, applying it locally for its local destructive action on the malignant cells, it being especially useful in application to cavities, such as nasal sinuses, esophagus, larynx, cervix uteri, bladder, rectum or buried in tissues, by means of metallic needles or emanation tubes. Radium can be used in this manner to increase the action from the x-rays in various locations,

and to help build up the x-ray dose to a point sufficient to destroy malignant cells in the treatment of deep seated lesions, found in bladder and uterus, where, owing to the size of the patient, or for other reasons, it might be impossible to pass enough radiation into the part, to be effective.

In regard to the proper dosage to apply in the treatment of malignancy, we are still perhaps a little uncertain. We must apply sufficient radiation to cause destruction to the malignant cells and still do as little harm as possible to the surrounding normal tissues. It will be necessary to determine by experimental work more definite dosage based upon the biological effects in the tissues. We know that the amount of radiation necessary to destroy carcinoma cells in different cases varies considerably with the type of tumor cell, therefore there is little to support the expression "carcinoma or sarcoma dose." In the meantime while we are all still working to improve our results in the treatment of malignant conditions, let us not forget the certain definite results to be attained, in the treatment of the many benign conditions, with the x-ray.

I would like to suggest here that a little missionary work be done among the physicians in general practice, especially those scattered throughout different portions of the country. Working in a Post Graduate institution, where physicians from all parts of the country come to get new ideas in the different branches of medical science. I am astonished to see the lack of information possessed as to the use of x-rays in treatment of diseased conditions. Apparently they have never heard of the use of the x-rays in the treatment of the most simple and to the Roentgenologist, the most common types of lesions, whereas, by strange paradox, they are usually better informed in the treatment of malignancy, or perhaps, I should say, worse informed, as some of them seem to believe anything possible with the use of radium or x-ray in the treatment of malignancy. I should like to suggest that some organized effort be made by the larger x-ray societies to see that papers are read covering these subjects at the various county medical society meetings, for I am fully convinced that there are large numbers of these benign conditions which should be treated by x-rays, which are now being treated by other and inferior methods.

In conclusion, would say that a review of the

literature shows that many good results were obtained in the treatment of benign conditions, and not a few good results reported in the treatment of malignant lesions in the early days of x-ray therapy. When we compare the equipment, knowledge of physics, and technique used at that time, with our present technique, knowledge, and equipment, we must conclude that the personal element, clinical knowledge and judgment must have been, at least, an important factor in the results obtained. Therefore, just as the possession of a knife and a knowledge of the technique does not make the competent and successful surgeon, just so, the possession of new and modern x-ray equipment, a knowledge of the physics and technique of the application of x-rays, does not make the successful Radiologist.

It has been my endeavor in this review of x-ray therapy, to give a brief resume of the early work as compared with our work in therapy at this time. I have avoided a detailed discussion of the physics and biological action of the x-rays, as I am neither a physicist or a biologist, but simply a clinician applying the x-rays for the treatment of disease along the lines laid down for us by the physicists and biologists. Judging the results obtained by the clinical effects, which after all, is the only method by which we can gauge the success of any therapeutic remedy, we know it is a good remedy, if we improved the patient's condition. If not, it is a poor one. We should remember at all times that we are treating a human being, namely, the patient, and not merely a pathological lesion.

In general, I think we can feel that considerable progress has been made: we have gained valuable knowledge through the use of the high voltage apparatus and new technique. By the application of some of the newer principles, used with the higher voltage apparatus, to our work in benign pathology we can improve our condition in the following points:

1. Better protection to the patient from radiation.
2. Better protection to the operator.
3. Better control of the quality of the rays.
4. Less danger of electrical shock to the patient.
5. Permanent placing of the filters, thus preventing burns due to failure to have filter in place.
6. Better methods of estimating depth dosage.

In the treatment of malignancy, we feel that at least we have a chance to improve the condition of our patients. It is true there is danger of injury to the normal deep tissues, but regulation of this danger is largely a matter of experience in proper dosage. We have also some compensation in the decrease of danger of damage to the skin. If we profit by the experience of the European workers, we should be able to avoid a large percentage of these bad results and still benefit our patients. Our greatest progress has been made perhaps, not in apparatus or high voltage, but in a better understanding of conditions and improvement in measurement of dosage and depth effects.

It is my opinion that we should not regard either radium or X-ray alone as a specific in the treatment of malignancy. Also, that in the treatment of malignancy by means of radiation therapy, in nearly all cases, it is necessary to use both radium and x-ray together, as one is usually supplemental to the other, and I do not believe it is possible in most cases to get the best results with either radium or x-ray alone. But by a combination of the two together, helped by the judicious use of surgery, the thermocautery and electro-coagulation, we can expect to get fairly good results in a certain percentage of our cases.

29 East Madison Street.

THE INTRATRACHEAL INJECTION OF OILS*

JAMES E. LEBENSOHN, M.S., M.D.,

CHICAGO

Non nocere!—do not injure!—if not the oldest, is admittedly the most fundamental watchword in medicine. A procedure arraigned on this count cannot ignore the challenge.

Lukens¹ in 1921 introduced the intratracheal injection of chaulmoogra oil for cases of tuberculous laryngitis, finding the treatment particularly valuable in the relief of pain and dysphagia. Our observations,² covering a period of many months on numerous patients, confirmed these findings. We noted, however, that this method of treatment was most efficacious in those patients whose laryngeal lesions were incipient or only moderately extensive. Our previous report, as well as this present one, is based on work in

*Read at 73d Annual Meeting of the Illinois State Medical Society, at Decatur, May 16, 1923.

the Throat Clinic of the U. S. Veterans' Hospital, Maywood, Ill. This is a general hospital of 1,000 beds, of which 350-400 are devoted to tuberculous patients in all stages. Fifty to seventy-five new patients are received monthly in the tuberculous wards; and an equal number are discharged or transferred.

Peers and Shipman³ comment rather adversely on this use of chaulmoogra oil in the treatment of tuberculous laryngitis, fearing that it may induce unfavorable constitutional reactions. They chose seven cases for treatment. One, an arrested case, was afebrile and remained so. Another, a moderately advanced case with a mild laryngeal lesion, secured definite improvement in her throat condition. The other five were febrile cases of far advanced pulmonary tuberculosis complicated with severe laryngeal lesions. Under the chaulmoogra oil treatment there resulted transitory relief from the laryngeal distress, but the temperature oscillations rose from $\frac{1}{2}$ degree to 2 degrees higher than it had been previous to the intratracheal injections of oil.

Since the appearance of this article we have carefully gone over the charts of our cases. In the past fifteen months we have treated 160 selected cases of tuberculous laryngitis with intratracheal injections of chaulmoogra oil. Fifty of these were febrile cases of *moderately advanced* tuberculosis. From their charts, the evidence of any unfavorable influence has been entirely negative. Comparison of the range of temperature oscillations in the periods before, during, and after chaulmoogra oil therapy has shown no significant changes. The medical officers in attendance in the tuberculous wards cooperated with us in the observation of these cases, and reported no detectable ill effects that could be ascribed to this form of therapy.

The febrile reactions noted in the *grave* cases of Peers and Shipman cannot be given great significance. The temperature oscillations in this class of patients is very wide, and the influencing factors are many. Had these patients been submitted to any other form of simple laryngeal manipulation, a rise of temperature might also have been anticipated. According to our observations in 15 cases of this type, a febrile reaction of some extent may occur, but its occurrence is inconstant in character and in degree.

In *afebrile* cases the temperature curve is not in the least affected by chaulmoogra oil. In none

of ninety afebrile cases studied has there been any change in their even course, either immediately or after long periods of treatment.

The use of chaulmoogra oil for intratracheal injections has been attacked from another angle. Corper and Freed,⁴ on the basis of pathological studies in rabbits, consider the introduction of *any* substance in the pulmonary tract as definitely productive of unfavorable reactions. Their own experiments were made with chaulmoogra oil, chaulmestrol (the ethyl esters of chaulmoogra oil), mineral oil, olive oil, and bismuth mixtures. They phrase their results as follows:

Full strength chaulmoogra oil, injected into rabbits intratracheally by means of a tuberculin syringe with attached needle, in amounts varying between .05cc. and 1 cc. produced varying grades of pulmonary destruction, the larger amounts causing an acute pneumonic inflammation and consolidation of one lung or more. With the smaller amounts, localized pulmonary abscesses or pneumonic consolidations developed. Similar changes were found following the administration of chaulmoogra oil or chaulmestrol in various percentages in either olive oil or liquid petrolatum. The changes that occur in the lungs at the site of the oil globules are those of a proliferative pneumonitis with consolidation and subsequent organization. Even at the end of two months macroscopic lesions are still present. The lungs of rabbits in whom only simple olive oil or liquid petrolatum had been injected intratracheally (in amounts not exceeding 1 cc.) showed on histological examination oil globules in the finest pulmonary divisions—the alveoli—where they had set up a mild type of proliferative bronchopneumonia.

Their data bring out the fact of extreme susceptibility in the rabbit's lung tissue—perhaps nothing more. In regards to their experiments, as previously noted, the intratracheal injections did not exceed 1 cc., and yet none of the different series escaped without mortality. Many of the rabbits receiving chaulmoogra oil or chaulmestrol died in 2-10 days. Some of the animals died even following the intratracheal injection of olive oil or liquid petrolatum. Of four rabbits given .5 cc. of a 25 per cent suspension of bismuth subcarbonate in olive oil,† three died in from 3-13 days. A similar saline suspension resulted in the death of 1 of 4 rabbits in 8 days.

The extreme susceptibility of the rabbit to the intratracheal injection of oils is in tremendous contrast to the tolerance of man. Colin Campbell⁵ used in a patient in 24 hours as high as 100 cc. of a preparation of menthol in olive oil without any apparent detriment. Practically every modern text-book dealing with laryngology gives

favorable mention to the use of oil injections. Prescriptions are numerous, and the dose usually recommended is one to two drachms. Seymour Jones,⁶ who devised an auto-injector for medicated oils, tells of a patient who treated himself with this apparatus three times a day for three weeks without experiencing any ill effect whatsoever.

H. A. Robins of the Chicago Municipal Tuberculosis Sanitarium, in a personal communication informed me that he had been unable to confirm by experiment on rabbits the results of Corper and Freed. Robins also extended his observations to dogs, and so far has given weekly intratracheal injections of 10 cc. oil to three animals for six weeks without observable ill effects.

In our study of the influence of intratracheal oil injections on the general health our guiding idea has been that a deleterious action on lung tissue is not likely to occur without *some* clinical manifestation—either immediate or delayed.

We have already disposed of the question of any immediate unfavorable reaction in the negative. But how are we to determine whether remote ill effects take place? The roentgen plate can be of no assistance, for even if it could define the small areas of bronchopneumonia and fibrosis supposedly produced by the oil, the complicated lung picture of tuberculosis would mask the findings. However, we have in the weight curve of the tuberculosis patient a valuable criterion of his general progress, and a sensitive index to agents affecting his well-being.

At the time Corper and Freed's article appeared there were still in the wards patients who had been given numerous intratracheal injections of oil over prolonged periods. Many of these had responded very favorably to the sanatorium treatment, were feeling better in every way, *and had gained much weight*. A table of representative cases in this group shows patients who have received daily to weekly treatments over a period of 6 weeks to 9 months. (Table I.) Each treatment consisted of an intratracheal injection of 2 cc. of 20 per cent chaulmoogra oil in liquid petrolatum or of 10 per cent chaulmestrol in liquid petrolatum. Observation of weight was *last* made 4-11 months after initial treatment. The table definitely demonstrates that long continued intratracheal injections of oil is not inimical to substantial gains in weight (20-34

lbs.); and hence probably not prejudicial to the general well being.

The underlying thought of Corper and Freed has been that oils intratracheally injected are lung irritants, and act similarly to agents productive of pneumoconiosis. The essential pathology of pneumoconiosis—whatever the cause may be—consists of the deposit of the particular material inhaled, and an overgrowth of fibrous tissue from irritation.⁷ The degree of alteration is dependent upon the nature, duration, and quantity of the irritant. Coal dust is much less irritating than metal or mineral dust. Statistics would indicate that though the severer forms of irritation predispose to tuberculosis, the minor forms may be protective. Wainwright found in the anthracite district about Scranton, Pa., that only 3.37 per cent of the male mine workers suffered from tuberculosis, while in those of other occupations the percentage is 9.97. Consequently, even if the contention of Corper and Freed is true that the oil reaches the finest ramifications of the bronchial tree, the harmful effects thereof would still remain to be proved.

Lukens in a personal communication reports that his cases of laryngeal tuberculosis have followed a course similar to ours and have shown a general improvement rather than the reverse after the intratracheal injection of chaulmoogra oil over long periods. He says, "A small quantity of oil would hardly reach the alveoli in quantities sufficiently large to remain as a foreign body. One cubic centimeter in the tracheo-bronchial tree of a rabbit would be equivalent to about 40 cc. in the human. The greatest value of chaulmoogra oil is seen in cases of tuberculous granulations and ulcerations which improve fairly rapidly under its use. In very early lesions the oil acts quite rapidly."

Tuberculosis of the larynx is only one of many indications for intratracheal medication. For the different conditions treated, a variety of preparations are in use. In all of them an oily base is necessary. This is well tolerated by the larynx, while a watery solution injected intratracheally produces laryngospasm and strangling cough. Oil injections have been found of value in most inflammatory conditions of the larynx, trachea, and bronchi. The irritating cough is very favorably affected. Weil⁸ employs the following formula with gratifying results: Camphor, gr. viii; menthol, gr. xx; oil of eucalyptus

m. viii; chloretone, gr. x; adrenalin inhalant, zij; liquid alboline, q.s. ad oz.ij. Page⁹ found intratracheal medication very effective for gas burns of the respiratory tract. He used 5 per cent camphor-menthol in olive oil when the trachea alone was affected; to which he added 2 per cent guaiacol when the bronchi were involved. Beneficial effects have also been noted in laryngitis sicca, atrophic laryngitis, influenzal cough, and bronchial asthma.

Seymour Jones⁶ gives the following exposition of the therapeutic mechanism of intratracheal medication:

Oils such as mentholated paroline, chloretone inhalant, etc., serve the purpose of allaying cough by their demulcent and slight anesthetic action, and they thereby aid in providing the prescribed and desired rest of the crico-arytenoid joints, and true and false vocal cords which furthers a cure. By coating the surface of the laryngeal mucous membrane, adherent oily antiseptics tend to prevent fresh tubercular [or other] infection of the mucous glands and the slight epithelial abrasions caused by coughing. Finally they are of use in inhibiting the secondary surface sepsis which aggravates and encourages the advance of infection.

For self-medication Yankauer some time ago introduced a laryngeal dropper. More recently Seymour Jones devised an "auto-injector" for transnasal laryngeal medication; and Dundas Grant¹⁰ has utilized the same principle. He finds the use of a small glass syringe with the mouth wide open all that is necessary. Nausea rarely occurs. To remove the oily taste afterwards, however, a mouth wash can be used of 5 per cent borax and sodium bicarbonate colored with carmine and flavored with aniseed and peppermint.

CONCLUSIONS

- 1. Intratracheal injection of oils is a valuable therapeutic measure for many conditions in the upper respiratory tract.
- 2. There is no clinical evidence that such injections judiciously employed cause any constitutional disturbance either immediate or remote.
- 3. The factors involved in the tolerance of man to oils intratracheally injected are worthy of further investigation. We regret having lacked suitable post-mortem material for studying microscopically the pulmonary tissues of cases that had received this type of treatment. The extent of penetration of the oil and the type of reaction induced would be important data to be determined.

3159 W. Roosevelt Road.

NOTATIONS

*The language of the original has been somewhat abbreviated.
†Lynah introduced the injection of bismuth mixtures for lung mapping to localize areas of bronchiectasis and lung abscess. (Lynah, H. L.: New York, M. J. 114:82, 1921.)

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DISCUSSION

DR. J. HOLINGER, Chicago: The use of different oils in the larynx and trachea is quite old. All kinds of syringes have been devised. For a long time a hard rubber syringe was used but was found dangerous because it was too brittle. The oil that was used most was highly mentholated petrolatum. This

TABLE I

No.	First Observation		Injections		Observation Last			REMARKS
	Pres. Wt.	Norm. Wt.	No.	Days	Period	Wt.	Gain	
3179	162	185	30	45	4 mos.	196	34	Afebrile; permanently relieved of laryngeal tickle.
2765	120	150	40	120	6 mos.	143	23	Afebrile; hoarseness temporarily relieved.
483	14	137	60	120	11 mos.	115	21	Afebrile; recurrent dysphagia permanently relieved. Voice improved.
3397	144	165	40	60	6 mos.	165	24	Afebrile; Dysphagia relieved. Epiglottis tip ulceration healed.
4288	115	187	20	200	9 mos.	135	20	Afebrile; hoarseness unrelieved. No dysphagia.

gave good temporary results in tuberculosis, but anyone who has seen any number of autopsies of tubercular laryngitis recognizes that complete cure must be rare from simply squirting oils on the larynx. The chloretone solutions in oil mixtures are principally soothing and are of particular use in relieving dysphagia, pain on coughing and respiration. I have no experience with chaulmoogra oil. I am not at present connected with any tubercular institution. The sanitariums are the best places to gather experience about new remedies. The old forms of treatment, too, gave good results. I have at least a dozen patients who have been cured for from fifteen to twenty years. The results have been verified by repeated examinations.

From a scientific standpoint the use of oil of different kinds in the larynx and bronchi has been confirmed in large experiments on animals. Different ethereal oils have been introduced into the stomach and it has been shown that the principal way of excreting these oils is through the mucous membrane of the bronchial tree in the form of minute droplets. This explains the well-known results of giving creosote internally. I never would undertake to treat a tubercular larynx without creosote internally. The chaulmoogra oil has its justification for local application, and it seems that the results of Dr. Lebensohn are encouraging.

DR. JAMES E. LEBENSOHN, Chicago, Illinois, (closing): Dr. Holinger's remarks about intratracheal injection are very illuminating. Whether intratracheal injections of oil is a justifiable therapeutic procedure or not is the question upon which I wished to focus your attention. The theory Corper and Freed advanced is that the method was fraught with danger and without adequate scientific basis. As I have shown their conclusions are open to considerable doubt, and the preponderating evidence at present indicates this mode of therapy to be valuable and reasonably innocuous.

A NEW TECHNIQUE FOR THE REMOVAL OF TONSILS WITH COMPLETE AND DEFINITE HEMOSTASIS FOLLOWING THE PRINCIPLES OF GENERAL SURGERY

O. M. STEFFENSON, M.D.
CHICAGO

The blood supply of the tonsil is carried on through five or six arterial trunks accompanied by their respective veins. The anatomic disposition of these vessels is practically constant but their relative size is subject to considerable variation. In children the upper branches are as a rule the larger while in adults the tonsillar branch of the facial usually forms the main blood supply. The unusual variation in the size of vessels so frequently encountered in

adults is undoubtedly the result of previous inflammatory reactions in the tonsil and peritonsillar structure occluding some vessels and causing compensatory dilation in the other blood channels.

The blood vessels of the tonsil do not enter the capsule or the extra-capsular portion of the tonsil in haphazard fashion but reach these structures through a vertical plane corresponding to a continuation outward of the external meridian of the tonsil mass. So constant is this arrangement that any tonsil may be dissected from the

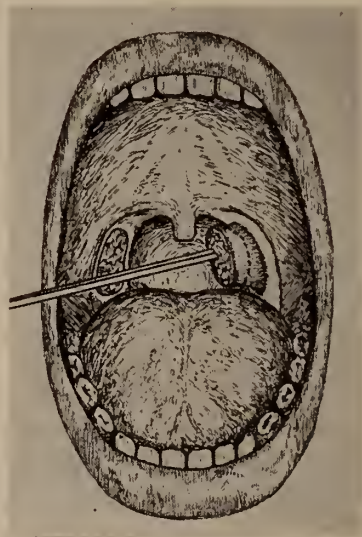


Fig. 1.—Dissection of anterior half of tonsil.

surrounding tissue beginning at the anterior and the posterior capsule rim and continued toward the external meridian without meeting any of the main branches.

Dissection of the tonsil carried on from the anterior rim of the capsule to its external meridian and followed in the same manner from the posterior rim forward to the external meridian will reveal the vessels of the tonsil running parallel to each other from above downward and at right angle to the external meridian in a fan shaped portion of tissue connecting the tonsil to the bucco-pharyngeal fascia.

The fan shaped tissue produced by dissection contains the blood vessels and has an average thickness of one line. It extends longitudinally like a fin on the back of the capsule from the middle of the velar lobe above to the tip of the extracapsular portion of the tonsil below.

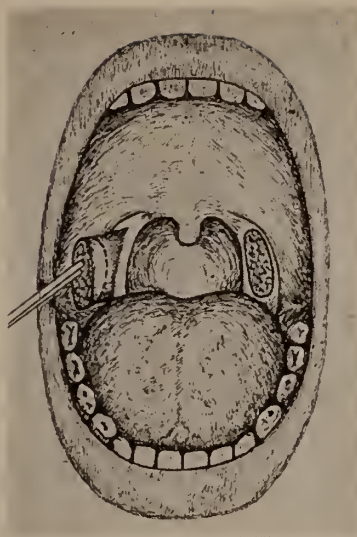


Fig. 2.—Dissection of posterior half of tonsil

Tonsil Extirpation: An incision is made through the mucous membrane at its junction with the capsule of the tonsil and continued completely around the margin of the tonsil as close to the crypt area as possible in order to save a maximum portion of membrane to cover the pillars.

The tonsil mass is then grasped by means of a suitable forceps and pulled toward the median line of the pharynx exposing the anterior rim of the capsule.

The tonsil is then separated from the tissue connecting it with the bucco-pharyngeal fascia

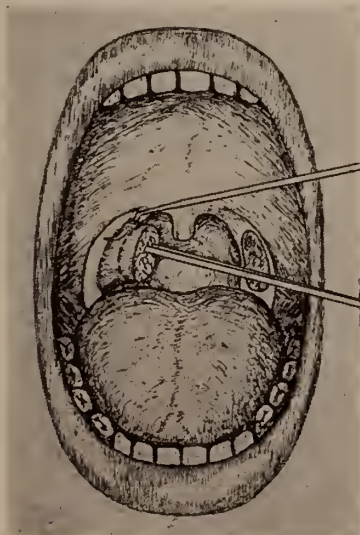


Fig. 3.—Introduction of suture in fan

by means of blunt dissection, in the direction of the external meridian of the capsule—half of the dissection being made from the anterior rim of the capsule in a posterior direction and half from the posterior capsule rim forward, continuing as far as the vessel area.

On approaching the external meridian from in front and from behind the vessels will be seen in the fan shaped portion of tissue produced by the dissection.

At this stage of the operation care must be taken not to wound the blood vessels in the fan, however an accident of this kind would not materially interfere with the method as the traction

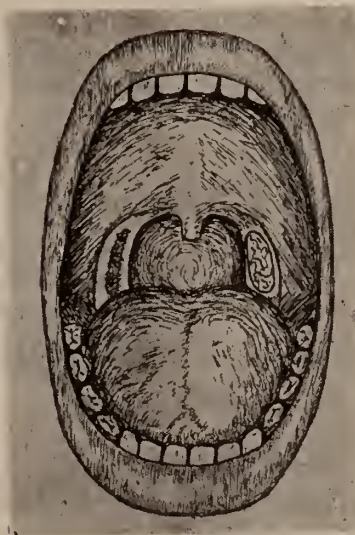


Fig. 4.—Sutures tied.

maintained on the tonsil keeps the field practically dry until the fan is ligated.

Ligation of the Fan: The fan consisting of areolar tissue and a small amount of connective tissue derived from the bucco-pharyngeal fascia has an average width of one-eighth inch and contains the entire circulation of the tonsil.

The ligation of the blood vessels situated in the fan is a relatively simple matter and may be accomplished by the use of No. 0 catgut ligature threaded on an ordinary small curved needle, or a special carrier may be employed with advantage for the purpose of introducing the catgut ligature.

The fan is ligated from above downward by means of a series of ligatures, each suture containing about one-quarter inch of the fan in its

grasp. In this way puckering of the wound is prevented and slipping of the ligatures does not occur. As each suture is made the tissue uniting that portion to the capsule of the tonsil is severed. The next ligature is then placed and tied and the section continued until the entire fan has been ligated and the tonsil removed. Three or four sutures are usually required to ligate the blood vessels.

This method of removing the tonsil is a definite surgical procedure in which hemostasis is adequately provided for and not left to chance or uncomfortable and uncertain clamping devices.

The operation may be practiced under local or general anesthesia. Under local anesthesia the field is free from blood and the dissection is readily accomplished with the structures clearly in view. With general anesthesia a certain amount of surface oozing of blood takes place

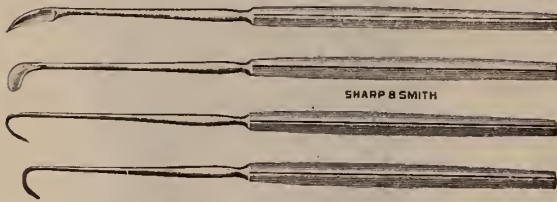


Fig. 5.—Knives and ligature carriers

but this is neither great nor troublesome and does not materially hamper the dissection.

In exceptional cases showing an unusual tendency to surface bleeding the technique given may be changed to a dissection of the upper two-thirds of the fan, using ligature and section as described and then removing the remaining attached portion without attempting to form the fan, catching and securing the lower vessel by the ordinary tissue inclusion method. The fact that the upper vessels have been secured makes the finding and tying of the lower vessel a simple and easy matter.

Conclusions: The operation is carried on in a comparatively bloodless field and hemostasis is completed with the removal of the tonsil.

Sponging, pressure, application of forceps and clamps is reduced to a minimum or obviated altogether.

The blood vessels are tied in a direction at right angle to their course, making for a secure hemostasis.

Trauma of the wound and the surrounding

tissue is reduced to a minimum, making the convalescence more rapid and less troublesome.

The reduction of vitality and the loss of resistance secondary to loss of blood at the time of operation is obviated.

Aspiration pneumonia is definitely obviated.

Loss of life from hemorrhage does not occur.

The previous operations concerned themselves with the removal of the tonsil and attention to the bleeding vessels afterward.

The technique described secures the blood vessels primarily and then removes the tonsil.

25 E. Washington Street.

AN INTRAVENOUS METHOD FOR THE EARLY DIAGNOSIS OF TUBER- CULOSIS IN THE GUINEA-PIG

S. A. LEVINSON, M.D.

From the Laboratories of the Municipal Tuberculosis
Sanitarium

CHICAGO, ILL.

In the early and obscure cases of tuberculosis, the most reliable means for the diagnosis of these conditions appears to be animal inoculation. The difficulty encountered with this method heretofore has been that it takes from four to six weeks to develop the infection in the inoculated animals. Furthermore, that in some animals used, the resistance may be of such a nature as to overcome a relatively mild infection. Investigators have been of the opinion that if these objections can be overcome, a great service will be rendered clinical medicine and public health.

The Roentgen-ray was one of the means used to reduce the animal's resistance. Murphy & Ellis¹ have demonstrated that white mice were more susceptible to bovine tuberculosis after having been exposed to the Roentgen-ray than were the control animals, probably due to the fact that the lymphoid tissue, which is an important factor in the defensive mechanism against tuberculosis, is destroyed. Morton² tried the Roentgen-ray on guinea-pigs and observed that when the animals were subjected to a massive dose of x-ray about the time of inoculation, they were so sensitized as to reduce the time of development of recognizable lesions to 10 days. Eckford³ is also of the opinion that it is possible by means of the Roentgen-ray to increase the susceptibility of guinea-pigs to tuberculosis. Corper⁴ in attempting to reduce the resistance of the guinea-

pig to tuberculosis by various means draws the following conclusion with the use of the Roentgen-ray:

A single exposure to the Roentgen-ray (as directed by Morton), sufficient to cause a temporary leucopenia in guinea pigs infected with a small amount (0.000,001 mgm.) of virulent human tubercle bacilli produced no appreciable effect upon the course of the macroscopic-anatomic tuberculosis in these animals. Likewise a leucopenia (as low as about 2,500, as compared to a normal of about 12,000 leucocytes per cubic millimeter of peripheral blood) occasioned by the Roentgen-ray, existing at the time and persisting throughout the period of infection, produced just as little effect.

Further studies by Corper using benzene, thorium, tuberculin, or ether produced no effect upon the course of the macroscopic anatomic tuberculosis in these animals.

The guinea-pig inoculation method has been used as a diagnostic measure for some time, but the great disadvantage with the methods employed is that it is time consuming. In spite of the fact that numerous attempts have been made to lessen the resistance of the animal in order to decrease the time required to produce an experimental tuberculosis, very little time was practically saved. It is with this object in view that this method under discussion has been investigated.

Methods and Results. During the course of one of our recent investigations⁵ we have observed that when tubercle bacilli are mixed with oil and injected intravenously into an animal, small emboli form in the terminal vessels of the organ into which the injection has been made. The question presented itself whether sputum when injected intravenously would also form small emboli in the organ injected and develop tubercles in cases of positive sputum. We adopted the following method for the intravenous injection of sputum.

The sputum from known positive and negative cases of pulmonary tuberculosis was obtained from the patients of the Municipal Tuberculosis Sanitarium. The sputum was then treated according to the method described by Petroff. The sediment at the bottom of the centrifuge tube was made up into a suspension using normal saline solution. The amounts to be injected varied from 1-2 cc.

The jugular vein is dissected out of a guinea pig, or the mesenteric vein can be used, and the amount of the sputum suspension is injected intravenously. Usually 2 animals were used for

each sputum examination. The animals were kept alive for from 10-14 days, when one animal was killed and the organs examined macroscopically for tubercles. If the first examination proves negative, the second animal is permitted to remain alive for the longer period of time, when the animal is killed and the organs examined for tubercles.

In using this method we were able with a positive sputum to produce experimentally a tuberculosis in a guinea pig in from 10-14 days. The negative sputa were repeatedly negative for tuberculosis in the animal experimentation, even when the animals were permitted to remain alive for several weeks. We further examined the sputum of some of the doubtful cases, or the very early cases of pulmonary tuberculosis in which a smear examination of the sputum was negative and the antiformin examination was negative, and the animal test would probably give the only possible clue for the presence of a tuberculosis, with the possible exception of a few clinical findings which might suggest a tuberculosis. In some of these cases we have observed that in the animals which gave macroscopic evidences of a pulmonary tuberculosis, a positive sputum was obtained on further subsequent examinations. The negative cases remained so, from the laboratory and clinical standpoint, after several months' observation.

In connection with the intravenous method of injection, two series of animals were injected simultaneously with the same sputum that was used for the intravenous method, one series being injected intra-abdominally, the other series of guinea-pigs were injected directly into the spleen or liver or both. In each series known positive and negative sputa were used, the same sample of sputum was examined in the three series for each experiment. One of the animals of each group was killed at the end of one week, another at 8 days and so on, until 2 weeks after the injection. This was done in order to ascertain the earliest time the tubercle can be seen macroscopically in the positive cases, with the different methods employed. The conclusions drawn from this investigation show that the animals that were injected intravenously with a positive sputum showed tubercles macroscopically sooner than the animals that were inoculated directly into the liver or spleen, or intraperitoneally. The animals that were inoculated directly into the liver or spleen:

with a positive sputum showed macroscopic tubercles earlier than the animals that were inoculated intraperitoneally.

The intravenous method described above is not new, but for some reason it has not been used much for diagnostic purposes. When compared with the other methods employed by various investigators the intravenous injection of sputum for the experimental production of tuberculosis as a diagnostic procedure is very promising. The ordinary animal experiment requires 6 weeks, but if the material to be examined is injected into the liver or spleen of guinea-pigs, as suggested by Oppenheimer,⁶ the time required for the usual tuberculous changes to be demonstrated grossly can be lessened to about 14 days.

In order to shorten the period considerably, and to render the procedure of more practical value a number of modifications have been suggested. Nattan-Larrier⁷ found that by injecting urinary sediment into the breasts of lactating pigs positive results could be obtained within 10 days. The objection to this method was the difficulty in obtaining animals in such a condition, thus rendering the method impractical for ordinary use. Bloch⁸ first traumatized the inguinal lymph glands before injecting subcutaneously into the thigh, and was able to demonstrate tuberculosis in from 9-11 days. Ebright⁹ further attempted to diminish the animal's resistance by a preliminary injection of a large dose of tuberculin, thus decreasing the time necessary for the production of tuberculosis. In this connection might also be mentioned the observations of Morton² and Eckford³ in attempting to diminish the resistance of guinea-pigs by the use of the x-ray. Corper⁴ came to the conclusion that the Roentgen-ray method failed to diminish appreciably the time required, and found it of no practical use in diagnosis.

Miller¹⁰ injected the specimen in question directly into the liver of the guinea-pig, and observed tubercle bacilli in the stained section of the liver as early as 11 days after injection. Evans, Bowman and Winternitz¹¹ observed that by injecting pure tubercle bacilli intravenously into guinea-pigs, tubercle bacilli and lesions were found in the livers of these animals as soon as 36 hours after inoculation.

It will be observed that with the various methods employed the intravenous injection is the most promising one for a rapid method for the

diagnosis of tuberculosis. This method possesses clinical and practical value in helping to demonstrate tubercle bacilli in the guinea-pig after inoculation from specimens in which the organisms are not easily demonstrable, or in which the clinical diagnosis has not definitely been ascertained. While this method is not by any means perfect, it will assist considerably in lessening the time required for the production of tuberculosis in guinea-pigs.

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THE PROBLEM OF THE NERVOUS PATIENT*

MEYER SOLOMON, M. D.

CHICAGO

The medical profession is gradually being forced to become more and more interested in the problem of the rise and spread of health cults and fads, so-called faith cures, and medical quackery.

I need but mention such current movements as so-called "Christian Science," "New Thought," "Osteopathy," "Chiropractic," and their offshoots, as well as "vegetarianism," "starvation treatment" of all diseases, and their ilk. Recently, here in the United States, so-called irido-diagnosis and the Abrams electronic cult and fraud have sprung up like mushroom growths. Coueism became famous overnight by a well-directed system of widespread newspaper, magazine and book propaganda.

The Relation of Nervousness to the Health Cults and Faith Cures. The number of individuals who flock about the banners of these cults is great indeed. Although some of these people actually suffer from some definite organic condition for which they are seeking relief in some one or more of these ways, a large proportion, the majority of such seekers for health and happiness, are primarily so-called nervous, anxious,

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worried persons with or without organic disease which may or may not have anything to do with the nervousness, anxiety or worry and with vague or definite cause or causes for their conditions.

However, those who have some sort of organic condition more or less directly responsible for their illness, have a certain degree of nervousness and anxiety, superimposed upon it. This nervous and anxious condition may thus often act as a mask underneath which is hidden some real organic condition which demands immediate attention. However, let me insist, it is the nervous and mental condition which drives the patient, first this way and then that, from the regular medical profession to some health cult, fad or faith cure, or from one cult to another.

Since the origin and meaning of the health cults and faith cures has not been chosen for discussion today, I shall not enter into a presentation of the causes responsible for their existence.

I shall agree at once that many psychological factors play a role in their genesis and evolution. I may enumerate a few: the yearning for immediate results, without delay; the craving for the magical, fantastic, sensational and wonder-working or miraculous; the hankering after paradise, the land of milk and honey, with wish fulfillment granted to one's heart's content; the desire for absolute assurance, with certainty, positiveness and 100 per cent guarantee of cure, with no effort, no discomfort, no inconvenience, no delay; the demand for a short cut, adopting the line of least resistance, fleeing from reality to phantasy and unreality, the relief from fear, the desire for attention, etc.

But above and beyond all these factors, there is one cause or factor which to me is fundamental and which can be found by studying the individual problem of the nervous or neurotic patient.

In other words, we must study and understand the makeup and dynamic forces of the nervous patient. We must know his physiological and psychological constitution, his temperament, his personality.

The Problems in Each Case. In a previous paper,¹ I endeavored to outline the essential characteristics of such nervous persons.

The problem reduces itself to three questions:

1. The characteristic traits of the nervous patient. This is found in (a) the evidences of

nervous and mental disequilibrium; and (b) the efforts to gain poise or equilibrium.

2. The cause or causes of the nervousness in the particular patient under consideration.

3. The best treatment or means of relief and cure in the special individual case at hand.

Basic Problem. I must lay stress upon the following fact which I endeavored to elaborate in the previous paper already mentioned:

"All of us are in a state of unstable equilibrium. The neurotic or nervous patient is in a state of relatively greater unstable equilibrium than the average person, is subject to disequilibrium more easily, more frequently and more markedly than his average fellowman, and must struggle for poise and equilibrium more constantly, vigorously and persistently."

The evidences of the disequilibrium and the results of the efforts to gain equilibrium will not be detailed. For the purpose of this paper, it is sufficient to know that it is the patient's struggle for poise and equilibrium which is responsible for his grasping, like a drowning man, for a straw, which in this case happens to be a health cult or faith cure, be it ever so nonsensical and unbelievable.

The ways and means by which different patients gain balance, stability and harmony are various and numerous. In one, it may be drugs (alcohol, morphin, cocaine, etc.); in another, the patient resorts to the so-called rest cure or some fad in dieting, or some special relaxation or physical culture scheme; a third flees to osteopathy or chiropractic; a fourth accepts "Christian Science," "New Thought," or what not; a fifth yields to the soft words and beguiling promises of the Abrams cult. And so on and so forth.

It is, then, the yearning for poise, harmony, equanimity, equilibrium, stability, unification, or integration, which is driving the nervous patient—uneasy, irritable, restless, anxious, fearful, worried—to the health cults and the faith cures.

The Danger of the Health Cults and Faith Cures. The patient is disturbed for one or more reasons—physical or chemical causes, physiological factors or psychological causes. He seeks relief from the state of nervous discomfort and imbalance, and yearns for peace of mind and nerves and body—for inner harmony and euphoria. Perhaps he believes he has gone the rounds of physicians and has received no satis-

1. The makeup of the Neurotic. Illinois Medical Journal, December, 1922.

faction. Perhaps he has given no physician a real opportunity to study his case and help him. He may disregard the cause or causes of his condition and seek and demand relief, or promised relief, at once, by any means. The health cults and faith cures offer him a ready way out, and promise him, in glowing terms, what he, in his heart of hearts, desires. Is it any wonder that he, all too often, becomes a victim? The psychology of salesmanship enters into the situation. The patient is "sold" to one or the other of the health cults or faith cures, or to several of them.

It is regrettable that much too often the internist, as well as the surgeon and specialist, adopts the purely medical approach and does not consider the nervous and mental makeup of the patient himself, his psychology, for the time being forgetting that we have not only a disease, but a patient, a human being, to treat.

Now, one of the most important dangers of the cults and their ilk, is that they treat all cases alike, by a uniform, fixed system, generally psychological, and make no effort to determine the cause or causes for the upset or illness in each case, or a *priori* reduce all of them to a single cause. The conception of both etiology and treatment is based on a single-track, one-sided approach to the problem. Therein lies their error—a failure to individualize and search for the cause or causes with variation in treatment to suit each case.

The Need of Individualization. Now, there is a definite need for individualization in our approach to each case, which should be viewed from all possible angles.

As every physician knows, and as every sensible person should know, there is no fixed etiology or specific treatment for all diseases. Each case must be studied carefully, individually, separately, unprejudicedly, by itself. The manifestations of disequilibrium, the efforts to gain equilibrium, the causes, and the therapy are to be determined for each patient.

THE CAUSES OF NERVOUSNESS

The causes of nervousness, by which I mean nervous irritability, fatigability and instability, with anxiety, fears and worry, may be enumerated or classified clinically as follows:

1. Functional or physiological—unhygienic living and bad habits (overwork, insufficient food or sleep, etc.), the physiological epochs (puberty,

menses, pregnancy, lactation, menopause, senium).

2. Organic diseases outside the nervous system—active tuberculosis, hyperthyroidism, arterial hypertension, etc.

3. Organic nervous diseases—cerebro-spinal lues, multiple sclerosis, etc.

4. Drug and intoxication states—from excessive coffee or tea drinking, alcohol and the rest.

5. Traumatism—post-traumatic nervous conditions.

6. Psychological causes—emotional conflicts centered about one or more instincts (such as sex, yearning for security, power, adventure, variety, companionship, etc.). These are often classified as conflicts related to the ego, sex and herd instincts.

The above clinical classification of etiological factors includes physical and chemical (internal and external), vegetative, skeletal and psychic factors.

No discussion is necessary to see the absurdity and illogicality of a uniform, one-sided viewpoint concerning any supposedly single cause of nervousness.

Existence of a Nervous and Mental Aspect in Every Case of Illness. Now, one or more of the above-mentioned types of causes enter into each case of nervousness. No matter what the original or basic etiology of the nervousness (irritability or instability), there finally is associated with all conditions a certain psychic aspect, which is manifested by restlessness, uneasiness, uncertainty, anxiety, fear and worry.

Consequently, no matter what the cause or causes, physical, chemical, physiological or psychic, psychological treatment or handling is indicated in each and every case of nervousness and in fact of illness of any sort.

The Appeal of the Health Cults and Faith Cures. The health cults and faith cures help to bring about a state of mental satisfaction or psychic calmness. The healer endeavors to quiet his patient, to give him poise and equilibrium. If the nervousness is only temporary, in any case temporary relief or so-called cure is effected or seems to be effected, even though the particular method employed had nothing whatsoever to do with the relief of the symptoms which may have subsided in the course of time for perhaps entirely different reasons. Since other methods

were also employed, such as improved hygienic habits, better living conditions, hydrotherapy, diet, etc., the latter are frequently relegated to the limbo of the forgotten, while enthusiasm and praise for the particular cult is the dominant trend or state of mind. If, in addition, the actual cause of the nervousness was but temporary, permanent relief or so-called cure results and is attributed to the cult.

Whatever treatment other than psychological is indicated in any case (drugs, exercise, rest, hydrotherapy, electrotherapy, massage, diet, or what not), psychological treatment is also necessary.

And whatever psychological treatment is used, all other methods of possible value in the particular case should and must be employed.

Individualization in Treatment. Just as the cause or causes of nervousness vary in each case, so, too, do the ways and means of gaining temporary or permanent relief, with poise or equilibrium; in other words, the treatment indicated varies with each nervous person, as with the rest of humanity. A combined therapeutic attack, the degree of dosage of the compounds in the mixture varying constantly, is the desideratum.

Lessons. "The need of making a real effort to understand the nervous and mental state, as well as the purely physical condition of the patient, is plain. In fact, has not every wise and successful physician treated his patients just thus?"

Every patient must be satisfied and calmed—not only by drugs, hydrotherapy, etc., but also by nervous and mental hygiene and therapy.

Fears must be relieved as much as possible while at the same time we are treating the cause, where unearthed, and relieving the complaints.

It is often found that this really becomes a personality problem in practical psychology.

There is a definite need for developing our own personalities, so that we shall be more dynamic and radiate cheer, faith, optimism, joy and cleanliness.

We must study the methods and the technique of the successful physician and even of the so-called healer.

We are facing the problem of how to keep the public prophylactically protected against infection by the virus of health cultism, health faddism and faith curism, and how to cure it of these latter diseases.

CONCLUSIONS

1. The nervous patient is in a state of disequilibrium.

2. No matter what the cause of the nervousness, there is a psychological, nervous and mental aspect to every case—with uneasiness, restlessness, anxiety, fear and worry.

3. The nervous patient is struggling for nervous and mental poise, equilibrium and harmony.

4. The health cults and faith cures offer such patients what they wish, but do not endeavor to determine the cause and treat the cases individually.

5. The physician, in addition to determining the cause and relieving the outstanding physical complaints, should do his utmost by all therapeutic means possible, to give the patient the poise and equilibrium for which he seeks. In all cases there is a nervous and mental condition to be treated. No matter what else is done, psychotherapy in some form or other, varying with the case, is indicated.

I make a plea, therefore, that more attention should be paid to a study of the nervous and mental conditions of our patients so that we may be able to handle them better and use good common sense and practical psychotherapy in addition to anything else we may do.

31 North State Street.

DISCUSSION

DR. ALBERT A. MERTZ, Warrensburg: I was very much interested in Dr. Solomon's paper. As doctors we must be human. If we are not so we must learn to be and act thus with our patients.

The doctors are not to blame for everything that goes wrong. To my notice, very recently, came a case, a woman suffering from neuritis who found the bed so uncomfortable in the hospital as compared to her bed at home that she left the hospital.

The nurse did not take into consideration her condition and placed the bell cord so she could not reach it nor could she ring same if she desired as her hands were helpless. The nurse after having been told these facts by the patient, asked what she was suffering from and when told neuritis, said, "my mother had neuritis for twenty years and died." This lady has a daughter who is a Christian Scientist.

If we are to succeed in our efforts to be human, the human element must be thoroughly acted out by the doctor, hospital superintendent, nurse supervisor, nurses and every one who has anything to do with the patient's care and treatment.

If we can all learn this and use and apply the human

element in detail, we will get a long way ahead towards coping with the various cults.

DR. SOLOMON: (Closing) I can go on by the hour on this topic. The points brought out by Dr. Mertz are very true. We often fail to train nurses from that aspect. I really didn't bring out the nursing end of it. That is a very important thing. I was thinking more of the ambulatory than of the bed cases.

It is true that many sick people are very irritable and want things right away. If they have no appetite and are going through the febrile stage of the illness, they can't think straight and the nurse's attention to little details is an important thing. The hospitals would have a much better standing if they were to lay more stress on the conservation of the energy of the acutely sick patient. Let us have as much humanism as possible.

31 North State Street.

THE VALUE OF STANDARDS OF INFECTIVITY IN VENEREAL DISEASES*

FRANK M. PHIFER, M. D.

and

N. K. FORSTER, M. D.

CHICAGO

That the prevalence of venereal diseases has become so widespread as to become a matter of very serious concern to all classes of people is witnessed by the many movements in this country, as well as abroad, to provide more efficient facilities for checking the dissemination of these diseases, and treating such persons as are already infected. In spite of the many warnings sounded in years past by eminent urologists and syphilographers, of the seriousness and danger to civilization of venereal diseases, it was not until 1918 that the United States made an attempt, through the passage of the Chamberlain-Kahn Bill, to effect some measure of venereal disease control through the various State Health Boards and the United States Public Health Service. While the efforts of these various bodies have certainly been of inestimable value through their educational campaigns, still it cannot be denied that venereal diseases are as prevalent as they ever were, if not on the increase, and the solution of this problem has not been attained. Since 1918 there has been an increase of from 25 to 35 per cent in the number of reported venereal cases, and while it is true that this means that

more attention has been given to the reporting of such cases to the various State Boards of Health, it likewise means that there is surely no abatement in the number of persons venereally infected each year. The arguments for and against the reporting of venereal cases are many and varied, and while it is conceded that the compilation of such statistics in the securing of accurate figures as to the extent of syphilis, gonorrhea and chancroid among the general population is invaluable, it must also be a matter of conjecture as to how many venereally infected persons will refuse treatment because of the existence of such regulations.

In the past the activities of the various State Boards of Health and the United States Public Health Service have been aimed at affording better facilities for treating infected persons, and preventive measures comprising both educational and legislative movements to check the spread of these diseases. Concerning the latter it cannot be questioned that any methods productive of a serious interest in venereal disease control, both on the part of the physician as well as the layman, are justified; and while educational activities are progressing there still remains a great deal to be accomplished along this line.

In attempting to formulate standards of infectivity which would guide the physician in arriving at a determination as to the possibility of a venereally infected person transmitting the infection, various Health Boards have issued regulations to be followed in ascertaining a cure. They prescribe certain and fixed rules by which a venereally infected person is to be judged non-infective following a course of treatment or after a period of observation. Previous to the issuance of these standards, medical and sociological literature has abounded with a variety of standards which only serve to accentuate the fact that opinions and viewpoints concerning the curability of these diseases have no common basis.

It is with a view of constructive criticism in mind that the value of any such set of rules or regulations, set up as standards of infectivity, is questioned, and it is the attempt of this paper to emphasize the necessity for individual consideration of every venereal case before judgment is rendered as to their non-infectivity. Every gonorrheic, as well as every syphilitic, is a case unto himself, and for his particular case individual consideration must be given, as well

*From the Department of Cystoscopy, Skin and Venereal Diseases, Cook County Hospital, Chicago.

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as definite appreciation of the essential and associated pathology present. To attempt to fix a standard to fit a case of untreated tertiary lues applicable at the same time to a case in which the primary lesion is unhealed, is impossible. Similarly to declare that an uncomplicated case of anterior gonorrheal urethritis is no longer infectious according to fixed standards of determination, and therefore a case of gonorrhea exhibiting one or many complications may be declared non-infective according to the same standard is unreasonable. If any progress is to be made in the control of venereal diseases at their origin, namely the infected person, it will be through a high standard of ability on the physician's part in handling the individual case, and through the intelligence and willingness of the patient in submitting to treatment and observation until all reasonable doubt as to his infectivity is dispelled, rather than through the carrying out of any set system of tests which at best are unsatisfactory and never infallible.

It must be granted that the determination of a cure in cases of venereal disease must rest upon the establishment of the fact that the causative organism has been entirely eliminated from the person infected, and at the present time we have no absolute means of determining this fact. However we can with relative certainty acknowledge that to all obvious signs and symptoms and laboratory results the patient is no longer infectious, but we can only do this when each patient is considered individually, and the pathology of his particular infection appreciated.

In considering the question of syphilis we find this condition so intermittent in its manifestations, and capable of revealing itself in lesions of the gravest significance months and years after the apparent cure, that we wonder at the ease with which many of these patients have been discharged. Clearly a large number of such cases must result from the placing of too much reliance upon a negative Wassermann report, together with insufficient appreciation of the possible late manifestations of this disease in the absence of any untoward symptoms. Previous to the introduction of arsphenamine the chief concern of the physician treating syphilis was to clear up the existing lesions and prevent their recurrence. Today practically all treatment, and the basis of most standards of cure is an assault upon the positive Wassermann, with the object of

getting it negative and keeping it negative. Very little consideration is given to the disease itself except in so far as to clear up the outward symptoms. The administration of a few doses of arsphenamine followed by a negative Wassermann reading constitutes, all too frequently, the basis of an adequate effort to treat syphilis. And yet the Wassermann reaction is the basis for practically all standards for the determination of either a relative or absolute cure of syphilis. The Wassermann reaction is not a specific test, since the antigen used is not an extract of syphilitic material or an emulsion of the causative organism, and it is possible to secure positive readings in leprosy, tuberculosis, malaria, hyperthyroidism, acute rheumatic fever, cancer, scarlet fever, certain protozoal infections and alcoholics. It has been determined that the blood Wassermann shows a positive reaction in nearly 100 per cent of cases of secondary lues, only about 80 per cent in late syphilis of the viscera, bones, skin, etc., and only about 50 per cent in syphilis of the nervous system. It is, moreover, well known that the spirochaetes may lodge in the nervous system, as well as the heart, spleen, testes and lymph nodes indefinitely, so walled off as to prohibit the action of remedies directed against them, and even defying diagnosis as to their presence. Consequently a positive Wassermann reading cannot always be interpreted to mean that there is spirochaetal activity, any more than a negative reading can demonstrate the extermination of the spirochaetes. Neither does it indicate that there is a definite tissue response in the production of antibodies to combat the invading organisms, since as already pointed out it is not a specific test, and consequently so far as serving as a basis for infectivity standards, or as a control in treatment it is unreliable, and this must apply in our opinion to the prevailing methods of securing series of Wassermann reports, provocative Wassermann reports, and similar measures in the determination of a cure. We are all familiar with the so-called Wassermann fast condition, in which a patient after what would seem adequate treatment, continues to show a positive Wassermann and yet remains symptomless. We have in mind one case in particular which exhibited this condition following the rather intensive treatment of 44 injections of neoarsphenamine. During the period over which these injections were given the only evi-

dence of possible infectivity which this patient exhibited was the positive Wassermann reaction. Following a period of rest and the employment of mercury and potassium iodid, a negative reaction was secured, and the patient promptly showed a typical recurrent secondary eruption. Cases of recurrent manifestations are numerous, and it is not uncommon to find cases which remain symptomless while the Wassermann reaction is positive, and develop symptoms as soon as it becomes negative.

At the present time there is no absolute proof of cure of this disease, either clinical, biological or serological, and in order to secure a relative cure our aim in treatment must be to render the disease sufficiently latent that the possibility of later sequellae supervening is a small one. According to Stokes, "Early syphilis can be arrested in a high percentage of cases, and the majority of patients, if well treated, can be said to be cured. Late syphilis outside the nervous system, can be arrested in the great majority of cases. Neurosyphilis can be arrested in perhaps from 50 to 60 per cent of the cases, and the condition of the patient greatly improved in from 80 to 85 per cent." Every authority at the present time emphasizes the necessity for adequate treatment, and it is generally agreed that this treatment cannot be reduced to mathematical formulae. It must be prolonged with the idea in mind of not only utilizing the spirochaetidal properties of the drugs at our command, but also of stimulating the body tissues to an effective and protracted defensive mobilization. For this purpose treatment should extend more or less continuously over two or three years, and intermittently thereafter as indicated for life. Adequate treatment must be considered the only safe basis for a standard of cure if such a standard is to be set up, irrespective of any and all Wassermann reports or similar laboratory procedures, and irrespective of the presence or absence of demonstrable clinical findings. Following adequate treatment who can say in the light of our present knowledge that a syphilitic cannot marry irrespective of whether his Wassermann is positive or negative, provided that he is subjected to a periodic overhauling for the rest of his life. Under such conditions, however, the wife and possible offspring must be protected through intensive treatment during each pregnancy, and the child should be treated from birth and over

a period of three years whether it shows signs of lues or not. Similarly we see no reason why a syphilitic woman should not marry following adequate treatment, and providing the same conditions are carried out.

Our chief objection to the numerous standards that seek to establish the fact that a cure has been attained in syphilis is that too much reliance is placed upon the Wassermann reports, and in view of our present unsettled knowledge of this disease too little attention given to the necessity for persistent treatment over a long period of time, with periodic treatment thereafter for life. It is our opinion that any standard which does not recognize this fact cannot possibly accomplish its purpose.

When one considers the number and variety of standards of cure of gonorrhea that have been suggested, it is readily seen that there still exists a very great deal of uncertainty regarding a cure of this condition. Every physician who treats gonorrhea is called upon at some time to pronounce judgement as to whether a cure has been obtained, and whether it is safe for the patient to marry. The seriousness of this decision cannot be discounted, for it entails so many factors of grave import not only to the patient, but to his intended bride and their future happiness, that it is criminal negligence if every means at our command are not employed in order to determine beyond all reasonable doubt that the patient is no longer infectious. And yet we find that patients are continually being discharged as cured upon the subsidence of clinical symptoms alone. If we disregard the class of patients who are content to secure a relief from their discharge, and considering themselves cured continue to infect scores of others; and if we disregard the prevailing pernicious custom of accepting patients for treatment on a contract basis, then there is little reason for us to expect any progress to be made in the matter of control of this disease. It has been definitely shown that over 75 per cent of all gonorrheics show evidence of involvement of the posterior urethra, and this invariably means infection in the prostate and seminal vesicles. Such a condition cannot be cured under our present knowledge and methods of treatment under a matter of months, and yet it is a common experience to find patients who have been promised a cure in three to six weeks, and who have never even had an

examination of their prostate and seminal vesicles.

In reviewing the number of standards of cure of gonorrhea that are suggested from time to time, one is struck with the attempt that is made to fix this determination according to definite formulae. So many negative smears or cultures, so many provocative injections, so many days of observation, and the patient is considered cured. Of the number who are submitted to such tests there is a large percentage who will develop a recurrence later on, for the reason that insufficient consideration was given to the pathology of their particular case. While one or two illustrations of this fact may not forcibly emphasize it, they may serve to bring out the necessity for individual consideration for the pathology present in each case of gonorrhea before the patient is discharged as cured.

A patient whose initial infection had occurred eight years previously, had had numerous recurrences up to the time of coming under our observation. He had consulted several physicians and following the use of various injections the symptoms had subsided, to recur again after two or three months. During all this time the patient had never had an examination of the prostate and seminal fluids, and only on two occasions was a rectal examination made. It is needless to state that he had a chronically infected prostate and seminal vesicles, and since the institution of suitable treatment he has responded favorably. Another patient had frequent recurrences extending over two years. He had been treated with evident success by several physicians, and on three occasions, following his course of treatment had been subjected to what might generally be considered a thorough examination for a determination of a cure. However these examinations failed to disclose the presence of two infected meatal glands, and upon their destruction with the cautery his recurrences ceased. Numerous instances of reinfection of the urethra due to chronically infected glands of Littre which have gone undiagnosed might be mentioned, and in fact there is hardly any complication of gonorrhea that has not at some time or other been overlooked in the course of an examination for the determination of a cure, with resulting recurrences at a later date, and usually because too much weight was given to the securing of negative laboratory reports, and too

little to a consideration of the pathology present. To take every gonorrheic whose clinical symptoms have subsided and run him through a definite fixed set of tests, and on their completion with negative findings discharge him as cured, defeats in a large percentage of cases the object of such a standard. It is true that some method of procedure must be followed out in attempting to arrive at a conclusion as to the infectivity of any patient, and this should include a careful history of the essential facts in the case, a rigid regional examination, a search for evidence of discharge either from the urethra, vagina, cervix or adjacent glands as the case may be, a thorough examination of the urine, a painstaking examination of the prostate, seminal vesicles and urethra in the male, careful cultures and smears of all secretions and discharges obtained as well as of the urine, the use of provocative injections of silver nitrate and of vaccines, and examination of the blood for gonorrheal complement fixation. This should be followed by subsequent examinations and a period of observation extending over a year before a patient can be said to be free from the danger of a recurrence beyond all reasonable doubt. When such a procedure is carried out, and suitable measures instituted in each case for the treatment of the particular condition present in that case, we may hope for some degree of success in the matter of controlling this disease. While it may appear that it will be impossible to secure the co-operation of the patients over such a length of time, still the fact remains that the intelligent patient is the one who will submit to such a procedure, and our efforts must be directed towards acquainting the public with the dangers of this disease in order to secure their co-operation. The majority of standards of cure do not recognize the necessity for such a protracted period of observation, and yet it is true that fewer recurrences will be found, and more progress made in checking the spread of this disease if such a time limit were imposed.

In dealing with the question of chancroidal infections, there has been little written or said which can be construed as a standard of cure of this condition, beyond the fact that all lesions should be completely healed. To this we can only agree, and add that certain types of chancroidal infections exhibit the most malignant sores that it is possible to find. Their treatment represents at times one of the most difficult prob-

lems we have, and constant and painstaking attention must be given them if their rapid spread is to be prevented. One of the chief dangers is to confuse the condition with syphilis, either alone or as a mixed infection, and in order to exclude any possibility of a luetic infection it is essential that repeated dark field examinations be made from the sore and the accompanying bubo, and repeated blood examinations be carried out over a period of three months after the lesions have healed.

In conclusion we can only emphasize the contention that no standard of cure is adequate which does not recognize the necessity of considering each patient individually, and with the consideration of adequate treatment and the element of time as its most important factors. In order to effect any progress in the control of these conditions, it is essential that the physicians recognize their responsibility to the community and the patient, and prepare to handle these cases in an intelligent and thorough manner; and it is likewise essential that the community and the patients themselves be made to know the seriousness of these diseases, and secure proper treatment that will extend throughout the course of their disease, and not end with the mere overcoming of any group of symptoms. When these requisites are secured definite progress will be made in solving the venereal disease problem.

7 W. Madison St.

THE SURGICAL TREATMENT OF LUNG ABSCESS*

BEN D. BAIRD, M. D.

GALESBURG, ILL.

In presenting for your consideration the subject of lung abscess, the writer is urged by the increasing frequency of its occurrence. Since the days of focal infection, with more and more attention given to tonsillectomies, and particularly since the influenza epidemic in 1918, the medical literature has been interspersed with articles dealing with bronchiectatic abscesses.

A review of the literature within the last twelve months has revealed a total of something over *fifty* cases reported, which deal with the diagnosis, etiology, pathology, and treatment of this most serious affection.

The latter phase of the question will principally be stressed in this discussion, although it is meet to add that bronchiectatic abscess, in the light of present day knowledge, is usually caused by the aspiration of blood and mucus and infectious material from the crypts of tonsils during tonsillectomy. Dr. Humas has recently advanced the theory that abscesses occurring high in the apices following tonsillectomy may be lymphatic in origin. However this may be, the presence of and the ever increasing number of lung abscesses is a problem which the physicians of today must face.



Fig. 4.—Photograph of patient at present showing cosmetic result and perfect muscular control with freedom of scapular motion.

During the last two or three decades, Robinson, Willy Meyer, Sauerbruch, Lillenthal and others have thrown much light on the disease and its treatment. And, during the past ten years, prominent roentenologists and bronchoscopists have contributed very materially to a better understanding of the disease, with the consensus of opinion leading away from medical and inclining more and more to the surgical treatment, particularly of the acute circumscribed bronchiectatic lung abscess.

*Read before Section on Surgery, Illinois State Medical Society, Decatur, May 16, 1923.

Owing to the extreme illness of these patients, and the formidableness of pulmonic surgery, only the boldest have recommended or practiced the free opening and drainage of these deep

consideration. And the fact that the successful results are infrequently exhibited urges us to report this case and to present the patient.

CASE 1302

January 3d, 1921.

An American nurse of 27. Single.

F. H. Her mother died at 49 with T. B. Two aunts died with T. B. No cancer or Brights. No brothers or sisters. Father living and well.

P. H. Cough in 1914, diagnosed T. B. Pus appendix in 1916, operated on. Jaundice after appendectomy. Frequent colds during past two years. Tonsillectomy Dec. 20, 1920. Lost 40 pounds of weight in three years, 20 pounds in last year. Has coughed for last two years.

P. H. Patient began feeling below par about two years ago following a difficult protracted cold. Has had loss of appetite, lost weight, easily fatigued, not rested after sleep, morning cough. Since tonsils were out, patient has failed to rally. A cough has developed which is dry and persistent. She has lost about ten pounds in weight. Five days ago, patient developed a pain in back of right chest, is worse on coughing and deep breathing. Has felt chilly at various times during the day for past week. Has had no real chill. Has had some night sweats since onset of this immediate trouble. Complains of coughing up small amounts of extremely nasty tasting material.

P. E. Reveals a young girl who is extremely toxic and who on coughing, emits a frightful odor from



Fig. 1.—Radiographic findings at onset of abscess condition showing interlobar process in upper right lung field.

seated and apparently inaccessible pus pockets. But the reward of having restored and grateful patients has moved others to adopt this method, until today it can be laid down as an axiom that "every case of acute circumscribed, bronchiectatic lung abscess is potentially a case for pneumotomy." While patients in the early stage may improve a great deal under regular bronchoscopic aspirations, this procedure can only be obtained at the hands of a highly trained and skilled bronchoscopist, and the morbidity following the inhalation of pungent and so-called antiseptic vapors and postural treatments have been equally discouraging to the patient and the doctor.

THE SURGICAL TREATMENT OF LUNG ABSCESS

A sufficient number of cases of acute circumscribed lung abscesses have been greatly improved or cured by incision and drainage to justify its consideration and use. And the case herewith submitted illustrates one method which my associates and myself have worked out, which satisfactorily solves the question of drainage, and the resultant cosmetic effects, with its comparative freedom from bleeding and accessible approach, justifies its being recommended for your



Fig. 2.—Post operative radiograph showing drainage tube extending from the cavity process and curving under the angle of the scapula to the exterior.

lungs. Skin O. K. Heart border contracted, tones good, no murmurs. B. P. 90/50. Chest screen and plate reveals an immobile right diaphragm. The whole upper right lobe is shadowed with a small cavity at the middle of the interlobe. The balance of both lung

fields shows a high grade fibroid pulmonary T. B. Right bronchial breathing, dullness, moist rales with sticky crackling tones. Left rough breathing. *Abdomen* negative. *Eyes* O. K. *Ears* O. K. *Nose* O. K. *Mouth*—good teeth, tongue heavy coat, no tremor; pharynx injected; tonsils, bases necrotic from recent tonsillectomy. *Neck* O. K. *Extremities* O. K. *Reflexes* normal.

Habits: Bowels constipated, catharsis two to four times a week. Bladder, frequency, occasional nycturia; appetite poor; sleeps well.

Urine: color dark straw; specific gravity 1.018; reaction acid; urea .8; albumin, mucin, and sugar negative; indican trace; no casts; numerous white blood cells; many epithelial and mucous. *Blood*: Hgb. 60%; color index .7 plus; red cells 4,000,000; white cells 18,800; polymorphonuclears 77; large mononuclear 5; small mononuclear 18; eosinophiles 0.



Fig. 3.—Radiograph of chest at present showing only slight collapse of the right chest and practically no pulmonary scarring.

Wassermann: Negative. Complement fixation test slightly positive reaction T. B.

Sputum: Character watery; bacillus tuberculosis absent; pneumococcus present; staphylococci; epithelium, micrococcus tetragenus.

Orders: Hospitalization, bed rest, nutritious diet.

January 6, '21: Screen exam. reveals practically no change in upper right pulmo field, except some enlargement in the cavity.

January 10, '21: There's an increase in the moist subcrepitant rales extending over into the posterior central lobes of left lung.

January 29, '21: Screen exam. reveals a clearing in the abscess region.

February 10, '21: Patient up and about.

February 17, '21: Patient down town.

February 17, '21: Sputum analysis—coughing almost continuously, expectoration scanty.

February 18, '21: Vaccine.

February 19, '21: Menstruating—cough much better—Slept soundly after 11 p. m. Expectorating freely when she coughs.

February 24, '21: High temperature following vaccine therapy—discontinued—temperature normal all day.

February 25, '21: Coughing great deal. Elix.—turpentine hydrate, ounce 1 every 2 hours.

March 5, '21: Fluoroscopic reveals no change in lung condition.

March 14, '21: Fluoroscopic location of abscess preliminary to drainage.

March 15, '21: Extra pleural thoracoplasty done under local anesthetic.

Operation: The scapular area of the right posterior chest was anesthetized by outlining by cutaneous wheels with 1 per cent novocaine as follows:

Beginning at the 4th costo-vertebral margin extending downward, paralleling the spine to a point opposite the 8th rib, curving outward and upward to the posterior axillary line to the cutaneous fold of the arm. Injections through this line were made one-half of 1 per cent novocaine solution into the intercostal nerves of the 4th, 5th, 6th and 7th ribs, and the subcutaneous tissues beneath this line were infiltrated. The flap as outlined, was reflected upward after dividing skin and muscle, carrying with it the scapula. The 5th, 6th and 7th ribs were then excised for a length of three inches with periosteum. The two pleural layers were then tacked in a 2½-inch circle with interrupted sutures of plain gut. The flap was replaced over gauze, the scapula covering the defects of the ribs. The muscles and fascia were united in layers and skin closed with silk.

March 16, '21: Great prostration—surgical shock—unable to void.

March 17, '21: Feeling some better—condition improved.

March 21, '21: Stitches removed—wound in good condition.

March 24, '21: Reoperated:

A preliminary hypo, hyosine and morphin; one-half of 1 per cent novocaine solution injected into intercostal nerves at costo-vertebra junction of 4th, 5th, 6th and 7th ribs of right side in the tissue underlying the old scar. Old scar and wound opened as previously exposed, and the artificially sealed pleural space exposed. A large trocar passed in an upward direction into the lung to a depth of three inches. A considerable quantity of dark blood containing flecks of pus with foul odor was removed by aspiration. A rubber catheter, size 18, was introduced to abscess cavity and anchored to the skin. A cigarette drain was introduced beneath the scapula (extra pleural). The wound was closed in three layers. S. S. S.

Following the second operation, March 24, '21: The wound has drained considerable pus and blood of the same foul odor as her breath. Her convalescence has been more or less stormy accompanied by prostration, anorexia and considerable temperature. After the first ten day period, her condition has improved. She is

able to be propped up on pillows and appetite is returning. At the expiration of the second week, irrigations of 1 to 1,000 iodine solution were instituted every other day which deodorized her breath and sputum and contributed to her general well being.

May 8, 1921: Discharged from hospital walking—no elevation of temperature for ten days. Sputum shows freedom from T. B.

DISCUSSION

DR. H. H. COLE, Springfield: I believe that is one of the nicest results I have seen in that type of work. There is just one question I want to ask the Doctor and that is, whether in his opinion it would have been possible to consider the presence of adhesions and other factors as to whether pneumothorax would have done anything for the patient. At times where there is established drainage through the bronchus you have a clear pleura and in these pulmonary abscesses you can relieve them by pressure on the pleural space.

DR. B. D. BAIRD, Galesburg (closing the discussion): Replying to the Doctor's inquiry concerning pneumothorax, we realize that is one of the recognized treatments in cases of pulmonary abscess. We do not believe there were any pleuritic adhesions in this case. We did not see them. We believe that in the face of the results and in face of the extreme illness of the patient that in this particular instance we did the advisable thing. We might have compressed this lung and we might have gotten just as good results but there were so many factors for all sorts of medical treatment that we decided we would take the bull by the horns and go in and drain this abscess.

MASTOID OPERATIONS UNDER LOCAL ANESTHESIA*

G. W. BOOT, M.D.

CHICAGO

The author of this paper has done mastoid operations under local anesthesia many times with most satisfactory results and wishes to call attention to this useful and at times life saving method of doing mastoid operations. Three things are essential to the success of local anesthesia in mastoid operations; sharp gouges, light strokes of the mallet and a tractable patient.

There is very little sensation in the bone. So far as is known there are no sensory nerves distributed to the bone of the mastoid process. If the gouges are sharp and thin chips taken by light blows of the mallet there is no pain. The pain that does occur is by the heavy strokes or by force transmitted through the bone to sensitive structures. It is easy to anesthetize the soft

structures by two layers of infiltration with Novocain solution, one just under the skin and the other under the periosteum.

With care on the operator's part the chips may be made thin and the strokes of the mallet light.

The tractability of the patient is hard to secure at times. With certain races it may be impossible. I have had a nineteen-year-old boy yell like a baby until he got the odor of ether and then become quiet, showing that the local anesthesia was good, while a five-year-old made no complaint whatever. Much depends on the operator's ability to secure the confidence of the patient.

The following may be considered as indications for local anesthesia in mastoid operations:

1. In the presence of profoundly septic conditions such as occur in scarlet fever.
2. In the presence of severe bronchitis or pneumonia, particularly when these occur in the course of measles.
3. In the presence of pulmonary tuberculosis, where general anesthesia may light up or accelerate the tubercular process.
4. In the presence of nephritis.
5. In the presence of diabetes.
6. In the absence of an anesthetist.
7. Where the patient objects to general anesthesia.
8. In old age where the general resistance to everything is low.

9. In the presence of high blood pressure. Here adrenalin should not be used with the novocain.

The contraindications to mastoid operations under local anesthesia are:

1. Nervous patients.
2. Where the sinus may need to be opened, unless the operator knows that he can control alarming bleeding quickly and can keep his patient from getting alarmed.

The results are just as good as in operations done under general anesthesia. The patient is not starved in advance, and he does not vomit or feel sick after the operation. The wound heals just as quickly as under any other method of operation. Acidosis is not increased by the operation. Operation under local anesthesia can be done at any age where a mastoid operation is indicated.

*Read at 73d Annual Meeting of the Illinois State Medical Society, at Decatur, May 15, 1923.

Case 1 Edward Schroeder, aged 5 years, admitted to hospital Nov. 12, 1922, with a diagnosis of scarlet fever. His nose was obstructed almost from the start. For this 10 per cent Silvol solution was instilled into the nose three times a day. On November 14 his right ear began to discharge; the same day nasal irrigations of normal salt solution and boric acid solution were begun and continued to November 26. The right ear continued to discharge freely. On November 20 his temperature reached normal. On the 1st of December he cried because of pain in the right ear and his temperature rose to 101.4 and did not return to normal. On December 3 there was tenderness over the right mastoid and his temperature reached 103.2. On December 5 I did a mastoid operation on the right ear under local anesthesia. From this time his condition improved and on the 31st of December the ear had stopped discharging and the wound was practically healed. On January 3, 1923, the scaling of scarlet fever had stopped and he was discharged.

In this case the patient had taken ether twice before and had found it very disagreeable. When taken into the operating room he cried and when asked why he cried he replied that he had taken ether twice and did not want to take it again. Having taken ether myself I sympathized with him and told him if he could keep still the operation could be done without giving him ether and without pain. He was willing to have it done this way and although he was only five years old he kept perfectly still throughout the whole operation.

Case 2. William Beckley, aged 12 years. Admitted to Cook County Hospital February 1, 1923, with skull fracture due to being struck by an auto. He was unconscious when admitted and had a profuse discharge of blood from the left ear. On February 3 he was stuporous but rational at times. On the 5th his temperature was 101. On February 8 he was quite bright but with a temperature of 99 and with sibilant rales in his chest. On February 13 he was up and about. On the 14th he complained of headache. On the 15th his left ear was painful and discharging pus. On the 16th he had a painful swelling behind the left auricle and paralysis of the left sixth nerve. February 17 his temperature was 104.2, respiration 36, pulse 140. Expiratory grunt was present. There was an area of dullness with increased vocal fremitus and bronchial breathing over the left lower lobe posteriorly.

A diagnosis of mastoiditis, localized meningitis involving the left sixth nerve and lobar pneumonia was made and operation done under local anesthesia.

On February 18 he felt better. Temperature 104.2, respiration 28, pulse 128. February 20 the patient had a crisis. Temperature 99. February 21, temperature 104.6, with new involvement on the right side over middle and lower lobe. February 27, temperature 105. Wound explored but nothing found. March 7. Condition much improved. Temperature normal.

At the time of the operation the patient was found to have a skull fracture with subsequent infection, mastoiditis, extradural abscess and lobar pneumonia. The infecting organism of the mastoid was found to be a streptococcus.

In such a case as this it would have been homicidal to have operated under ether anesthesia.

DISCUSSION

DR. CHARLES M. ROBERTSON, Chicago: While in the army I had the pleasure of being operative chief at Fort Sam Houston Base Hospital and there we did all of our mastoids under local.

One point to be remembered about this local operative procedure is that if you do an exenteration of the middle ear you must cocaine the mucous membrane of the middle ear. This can be done by means of pledgets of cotton placed in the middle ear. There is no particular pain to the operation with the gouge but I prefer to use an electric driven burr and if you get a burr that is pretty sharp there is no pain whatever. Otherwise the procedure is just the same as that under a general anesthetic.

DR. EDWARD F. GARRAGHAN, Chicago: I would like to ask Dr. Boot if he has had any experience with scopolamin-morphin anesthesia. I have had several cases which I have operated on in this way very successfully.

DR. C. F. YERGER, Chicago: Recently I had a case where a radical mastoid operation was indicated, but in which a general anesthetic was contra-indicated on account of a chronic diffuse nephritis. One-half hour before the operation, a hypo of 1/200 gr. of scopolamin and 1/4 gr. of morphin was administered, expecting to obtain "twilight sleep," but this dosage was apparently insufficient. Then 65 c. c. of a 0.5 per cent solution of Procain was injected as follows: at the upper point of entry, about one inch above the attachment of the auricle, 10 c. c. was injected anteriorly and 15 c. c. posteriorly to the auricular attachment; from the lower point of entry, one inch below the attachment of the auricle, the same quantities were injected in like manner. This infiltrated the whole field of operation by blocking off the aurico-temporal nerve, occipitalis minor and auricularis magnus nerves that innervate the skin, soft parts and mastoid bone. To obtain anesthesia of the auditory meatus 5 c. c. was injected into the region of the supro-meatal spine, from below upwards, to reach the auricular branch of the vagus (Arnold's nerve); from the same point 5 c. c. was injected in front of the meatus toward the zygoma, injecting the auriculo-temporal nerve which supplies the meatus. The whole ear was now anesthetized with the exception of the antrum and tympanum which are supplied by the tympanic plexus, which was blocked by an injection of 5 c. c. into the upper meatal wall at the junction of the cartilaginous and bony meatus, the solution penetrating subperiosteally into the sub-mucosa of the tympanum. I found that in addition to this, it was necessary to apply 10 per cent cocain solution to

obtain adequate anesthesia of the tympanum and that the manipulation necessary in this region is the most painful part of the operation. On the whole the anesthesia was very good. The only disagreeable feature about the infiltration anesthesia was a trismus that resulted from the anterior infiltration in the region of the temporo-maxillary articulation and the masseter muscle. However, this is of no consequence as it disappears completely in two or three days.

DR. GEORGE W. BOOT, Chicago (closing); I wish to thank Dr. Robertson for calling attention to one other point in the technique of the local method.

I have not used scopolamin and morphin anesthesia. I do not like to use even morphin in connection with ether. I think it is best not to mix anesthetic drugs too much for if one avoids this and anything goes wrong he knows better what is to blame and what to do.

As to the radical operation, I think you get better anesthesia if you carry the needle along the wall almost to the anvil, catching the nerves as they enter the tympanum.

Society Proceedings

COOK COUNTY

CHICAGO MEDICAL SOCIETY

The annual dinner of the Chicago Medical Society was held at the Morrison Hotel October 10, at 6 o'clock.

Dr. Archibald Church was installed as president and Dr. R. R. Ferguson as secretary.

Mr. Richard J. Finnegan, managing editor Chicago Journal, gave an address on "The Doctor and the Press Face to Face."

REGULAR MEETING, OCTOBER 17, 1923

"The Acute Hemorrhage of Stomach and Duodenum and Its Surgical Treatment, Prof. Hans Finster, Vienna, Austria. Discussion by A. J. Ochsner, E. Wyllis Andrews, Bertram Sippy and Carl Beck.

REGULAR MEETING, OCTOBER 24, 1923

1. "Ovarian Therapy from an Endocrine Standpoint," James H. Hutton. Discussion by L. R. Dragstedt, E. L. Cornell.

2. "The Protective Forces of Nature," George De Tarnowsky. Discussion by Chas. L. Mix and Prof. A. C. Ivy, University of Chicago.

CHICAGO OPHTHALMOLOGICAL SOCIETY

May 15, 1922

Dr. E. K. Findlay presided.

Prof. Ernst Fuchs of Vienna was the guest of honor.

ECTROPION OF LEFT LOWER LID

Dr. Michael Goldenburg presented a man, aged 87, who came to the hospital on October 28, 1921, with an ectropion of the left lower lid, due to a complete paralysis of the left facial. In view of the age of the patient it was thought advisable in order to save the eyeball, to stitch the lids together.

At the time of presentation the facial paralysis was much improved, and it was thought that the lids would be separated a little more toward the inner canthus to permit the patient to see a little better. Diagnosis by a neurologist was hemorrhage into the internal capsule.

SARCOMA OF THE EYE

Dr. Goldenburg then presented a woman, aged 34, a housewife, married 15 years, who had five children, all living, no miscarriages. She first noticed a protruding of the right eye last November. It had progressively become worse, but she stated that it was somewhat improved in the last few days. At onset she had severe headache, involving the area around the right eye. This pain was accompanied by weakness. Examination showed the right eye protruding forward and outward, and could not be replaced. Left eye negative. Vision, right eye 15/200. Vision, left eye 15/20 minus 2. Right and left pupil reacted to light and accommodation.

Fundus: Right media clear. Temporal side of disc could be defined. Nasal side tilted forward and lost in surrounding tissue. Some tortuosity of vessels, particularly on nasal side, as if there was some bulging on that side involving the whole eyeball. A vertical wrinkling of the retina was noticed. No hemorrhages visible. Left, media negative. Disc fairly well defined, shallow saucer cup. Vessels, retain and macular negative. Right antrum was irrigated with difficulty, but no discharge was found. Nasal examination disclosed septum slightly deviated to the left. Inferior turbinate normal. Middle turbinate pressed against septum. Upper part of nasal vault pretty well closed up. Slight discharge from right middle meatus. Blood Wassermann negative. Radiogram showed a complete blocking of the right antrum, right ethmoid and right frontal sinus. The rim of the right orbit in the region of the frontal sinuses and the ethmoids showed a marked destruction. This condition was evident on the anteroposterior view and in the perpendicular view. The lateral view showed a marked apical abscess involving the superior right first and second molars. An attempt was made to irrigate the right antrum, but when the trocar was introduced no water could be forced in until the trocar was partially withdrawn, indicating that some part of the antrum was filled. The suspicion based on radiographic findings was that it was a sarcoma.

COLOBOMA OF THE MACULA

Dr. A. P. Hunneman presented a boy who came into the hospital because of poor vision. During the routine examination the interesting condition was found and diagnosed as a coloboma of the macula. The term "coloboma of the macula," however, should only be used in a topographical sense, to indicate a partial atypic coloboma of the retina and choroid, since the macula is not developed in the fetal cleft. These colobomata are supposed not to be hereditary but may be congenital.

These cases were rare, and might be mistaken for choroidal changes. About 46 cases had been recorded up to 1916. Usually the horizontal oval diameter

was 1 to 10 disc diameter. There was generally some ectasia, 1 to 6 D., maximum 10 D. The edges were usually sharp and showed a line of pigment. There was often a yellowish zone outside. The surfaces might show patches of pigment. Where coloboma was unpigmented it had a pearly glistening color. As in other coloboma, there were retinal and ciliary vessels. Large branches of the ciliary vessels might emerge from the floor. Coincident anomalies were rare.

The refractive error in this case was myopic. Vision of the right or affected eye was 18/200 and of the left 20/20 with correction. The size of the coloboma was about 4 and 3 disc diameters, with an ectasia of 6 D. and was slightly pigmented on the nasal side.

UVEITIS, BULLOUS KERATITIS, HYPERTENSION

Dr. T. D. Allen presented a young lady referred to him in November, 1921, with a history of pain in the right eye extending over a period of eleven months. Examination showed the right pupil widely dilated (atropin). Vision, hand movements, and at times fingers at a few feet. The cornea was steamy, particularly the lower half, and a large bulla could be seen on it. The anterior chamber was quite deep, and there were spots on the posterior surface of the cornea. There was slight edema of the conjunctiva. Tension was considerably increased to the fingers. The use of eserine reduced the tension to a marked degree. The fundus could not be clearly seen.

The following day the bulla on the cornea had completely disappeared; the tension was 60 mm. of mercury, whereas in the left eye it was 24 mm.; eserine was again used and the tension came down. A diagnosis of uveitis with bullous keratitis and hypertension was made. The patient was sent to the hospital where careful general examination revealed no gross abnormality. The sinuses were investigated, the ethmoids and sphenoids on one side completely cleaned out, and the tonsils cleanly removed without relief. Teeth negative, and tuberculin tests negative.

Finally, a paracentesis was done, with relief for about one week; when the tension again went up and remained high in spite of miotics or mydriatics. After further study it was decided to give some foreign protein intravenously. This gave immediate relief. The first dose, which gave a chill and temperature of 102 degrees, reduced the tension; the eye became white for the first time in months and all subjective symptoms were relieved. There was a relapse, so the dose was repeated and in all seven injections of typhoid vaccine were given.

The patient then left the hospital and was watched at home for a time, but the condition recurred. Owing to the history of pus tubes after marriage some ten years before, she was put on *g. c.* vaccine, but as there was no systemic effect after increasing the dose to 4,000,000,000 it was discontinued and another dose

of typhoid vaccine was given. This caused a marked reaction and since that time there had been no return of tension. The eye had remained white, there had been no subjective symptoms, the patient had felt better and gained weight. The bullae on the cornea, though smaller, had continued to form about once a week.

Soon after performing the paracentesis all of the epithelium was removed from the lower two-thirds of the cornea. The membrane of Bowman was scraped and iodine applied. Three days later a bulla appeared on that place. At presentation the vision was 20/50 in the right eye, and there was a small organized exudate in the posterior chamber at 6 o'clock, which was visible with the naked eye when the pupil was dilated. There were also still many deposits all over the posterior surface of the cornea. The left eye had been perfectly normal at all times.

DISCUSSION

Professor Ernst Fuchs, of Vienna, believed that in this case if the cornea was scraped and the vesicle examined a fine new membrane would be found under the epithelium. The steaminess of the cornea, in an attack of glaucoma, acute or chronic, was due to the accumulation of droplets between the deeper layers of the epithelium, due to the high tension. If the tension dropped, the steaminess might disappear within $\frac{1}{2}$ hour to an hour as these droplets were absorbed. In cases of long standing these droplets coalesced and formed large accumulations of liquid beneath a new formed thin connective tissue membrane lying between the epithelium and Bowman's membrane. Bowman's membrane was perfectly smooth and it was easy to understand that such a membrane superimposed on it was not firmly attached and could be easily detached by the accumulation of fluid. On attempting to remove the vesicles by scraping a great part of the epithelium could be removed, sometimes almost the entire epithelium, which could not be done with a normal epithelium. Microscopic examination showed a fine membrane connected with the epithelium. He had removed the vesicles and touched the exposed corneal stroma with iodine and knew of nothing better. This had to be repeated in some cases.

MELANOTIC EPIBULLA TUMOR

Dr. William H. Wilder presented a young unmarried woman with a melanotic growth on the temporal side of the left eye which was visible even at a distance. This growth appeared about eight years ago, beginning near the temporal limbus. It gradually increased in size, became slightly elevated and encroached on the corneal limbus. She was seen two years ago and the diagnosis of melanotic sarcoma was made, and the customary treatment of enucleation advised. The patient had never had any pain, the vision was normal, and there was no sign of disturbance inside the eye, so the patient refused to accept either the diagnosis or treatment.

Radium therapy was instituted and she had received thirty or forty applications, of 100 mgs. radium for as much as fifteen minutes at a time. For a time this seemed helpful, and a peculiar change had taken place. Evidently from the effect of the radium the pigmented cells had been dispersed and could be seen scattered over the conjunctiva. The growth had

not decreased, but was extending and encroaching more and more on to the cornea. Dr. Von Der Heydt had examined the eye with the slit lamp, but could find no evidence of new pigmentation in the interior of the eye.

The case was interesting because of its chronicity. Melanotic sarcomata usually grew rapidly but this growth had existed for years. Dr. Wilder wondered if they might be mistaken as to the exact nature of the growth, and whether it might be a *pigmented epithelioma*. These were rare, but did exist. This surmise had been strengthened by Dr. de Schweinitz who saw the case and thought because of the chronicity it might be this type of growth.

The patient disliked to part with an eye that had normal vision, but he believed a radical enucleation was indicated.

To be continued.

DEKALB COUNTY

The DeKalb County Medical Society met at the Glidden Hospital, DeKalb, Oct. 18, 1923. A splendid dinner was served by the superintendent, Miss Anna Medendorp, and her assistants.

There were nineteen physicians present, representing DeKalb, Sycamore, Kingston and Shabbona. Dr. Geo. Goodrich of Phoenix, Ariz., was a guest.

Dr. David L. Hedberg of Sycamore and Dr. C. H. Perkins of Genoa were unanimously elected members of the society.

Officers elected for 1924 were as follows: President, Dr. J. S. Rankin, DeKalb; vice-president, Dr. W. L. Shank, Shabbona; secretary-treasurer, Dr. Clifford E. Smith, DeKalb; censor for three years, Dr. E. C. Burton, Kingston; delegate to state meeting for two years, Dr. C. B. Brown, Sycamore; alternate delegate to state meeting for two years, Dr. E. B. Neff, DeKalb.

An able paper on "The Ductless Glands in Mental Deficiency of Children" was read by Dr. W. L. Shank of Shabbona. Dr. F. LeBlanc of DeKalb discussed this paper.

An interesting paper on "Diverticulitis of the Sigmoid, with the report of three cases, was given by Dr. E. B. Neff, DeKalb. This paper was discussed by Dr. S. L. Anderson of DeKalb and Dr. George Goodrich of Phoenix, Ariz.

A rising vote of thanks was given the hospital, Miss Medendorp and her assistants, for their delicious dinner and entertainment.

MADISON COUNTY

OUR OCTOBER MEETING

The Madison County Medical Society met in Edwardsville on October 5, 1923. In the absence of the president, Dr. R. S. Barnsback, vice-president, presided. Twenty-five members and five visitors were present.

The secretary announced that a Madison County Tuberculosis Clinic would be held at the courthouse in Edwardsville on October 23, 1923, and another December 3, 1923, Dr. George T. Palmer of Springfield to be in charge of both these clinics and the doctors of the county are requested to refer patients for diagnosis and advice.

Dr. H. A. Cables of East St. Louis was then introduced by the president and gave a highly instructive address on "Insulin." Dr. Cables had given this subject his especial attention and knew how to impart the knowledge gained by his study. A lively discussion followed the address and many questions were asked and answered, much to the satisfaction of the participants.

A rising vote of thanks was given Dr. Cables for his valuable contribution to our program.

OGLE COUNTY

The Ogle County Medical Society met at the Chamber of Commerce, Rochelle, Wednesday, 27, 1923.

Owing to a twenty-four hour rain and the bad condition of the roads the attendance was smaller than expected.

There were present Drs. Kennedy, Kittler, Crowell, Dale and Bogue of Rochelle, Dr. Gauze of Creston, Dr. Johnson of Chana, Dr. Davis of Monroe Center, Dr. Akins of Forreton and Dr. Beveridge of Oregon, Dr. Irish of Chicago, Dr. Childs of Lee, Drs. Murphy and McNichols of Dixon.

Officers for the following year were elected as follows: President, J. O. Akins of Forreton; vice-president, J. M. Beveridge of Oregon; secretary and treasurer, J. T. Kretsinger; censor, T. McEachern, three years; delegate, W. H. Kittler of Rochelle, alternate delegate, H. G. Davis, Monroe Center.

Application for membership in the society was made by Dr. Dale of Rochelle and Dr. Childs of Lee. Action on these applications was delayed until the next regular meeting.

Dr. Davis gave a report on money raised and disbursed for the July meeting and picnic, which was accepted and committee discharged.

Dr. Henry E. Irish of University of Illinois gave a very interesting talk on the subject, "Dysthesia, or Difficult Nursing," which was well received and ably discussed.

Dr. W. A. McNichols read a paper on the subject, "Para-Nasal Sinus Disease in Relation to Arthritis." The papers were both good and presented some new ideas to most of us. After discussion society adjourned to meet at the regular time as called by the officers.

J. M. Beveridge, Secretary, pro tem.

PERRY COUNTY

Perry County Medical Society met in regular session at the residence of Dr. H. I. Stevens in Tamaroa, Friday evening, Oct. 5.

Dr. Andy Hall of Mt. Vernon, councilor for the ninth district, gave a very able talk on "Obstetrics"

and was followed by several members in discussion of this important subject. Dr. E. J. Burch of DuQuoin read a short paper on "Pituitary Extract." Dr. Hall complimented Perry County on the fact that of the twenty-one eligible physicians eighteen are in good standing in the society. To stimulate attendance the three last meetings have been held in homes of physicians, Dr. and Mrs. E. J. Burch of DuQuoin having royally entertained the society one month ago. This has worked well and we recommend it to other counties having a small membership. Lunch has been served by the hostess after each meeting, and has been appreciated by all. The home surroundings contributed to the comfort of the physicians who attended. Dr. H. W. Wolf of Tamaroa is president this year. Dr. Wells of Waltonville was a guest of the society at this meeting. Next regular meeting will be held at Pinckneyville.

J. S. Templeton, Secretary.

Marriages

CLARENCE FRANK GUNSAULAS BROWN to Miss Miss Marjorie Mitchell, both of Chicago, October 3.

BLAINE WILSON CLAYPOOL to Miss Ruth Eloise Henninger, both of Chicago, October 27.

EDGAR R. HOLMES to Miss Alma L. Hieser, both of Minier, Ill., September 13.

BENJAMIN LEVINSON to Miss Rae Wind, both of Chicago, October 7.

EARL R. MCCARTHY, Chicago, to Miss Elizabeth McEwen of Winnetka, Ill., October 20.

BENJAMIN VAUGHN MCCLANAHAN, Galesburg, Ill., to Miss Anna Belle Stevenson of Monmouth, Ill., September 26.

KARL B. RIEGER, Freeport, Ill., to Miss Lillian E. Hall of Chicago, October 6.

Personals

Dr. Thomas R. Crowder, Chicago, was elected president of the Association of Railroad Chief Surgeons.

Dr. B. Barker Beeson, Chicago, has been elected a corresponding member of the Société médicale des hôpitaux de Paris.

Dr. James A. Britton has been appointed a member of the board of directors of the Chicago Municipal Tuberculosis Sanatorium.

Dr. William E. Rice, Tuscola, has gone to Raton, N. M., where he will have charge of the new tuberculosis sanatorium.

Dr. David J. Davis, University of Illinois, has been appointed consulting pathologist and bac-

teriologist to the newly reorganized St. Elizabeth Hospital, Chicago.

Dr. Edith Lowry Lambert, St. Charles, has gone to Nevada and California for six months to organize child welfare work in those states under the auspices of the U. S. Public Health Service.

Dr. Franklin C. McLean, for several years director of the Peking (China) Union Medical College, has been appointed professor of medicine at the University of Chicago Medical School.

Drs. Willis O. Nance Dean Lewis, Joseph L. Miller and Lawrence Ryan, Chicago, all former Kewanee men, furnished the program for the Tri-County (Henry, Knox and Warren) Medical Convention held in Kewanee, October 10.

Dr. Emilius C. Dudley, who in the last two years has been visiting professor of gynecology at Hunan-Yale Medical School, Changsha, China, the Peking Union Medical College, Peking, China, and the University of the Philippines College of Medicine and Surgery, Manila, P. I., has resumed practice in Chicago.

Dr. Gertrude E. Moulton, Urbana, for the past four years physical adviser to women at the University of Illinois, has been appointed head of the department of physical education at Oberlin College. Dr. Maude L. Etheredge, head of the women's division of student health service, Cornell University, has been appointed to succeed Dr. Moulton at the University of Illinois.

Drs. Ethan Allen Gray, R. H. Dunham and H. H. Bay of Chicago, attended the Mississippi Valley Conference on Tuberculosis at Evansville, Ind., last month.

Dr. B. B. Hutton has removed from Newton to Harrisburg and will limit his practice to diseases of the eye, ear, nose and throat.

Dr. F. E. Glauner, formerly of Marine, who has been taking a post-graduate course in Berlin, is now continuing his studies in Vienna.

Dr. J. W. Pettit of Ottawa, for many years the wheel horse in tuberculosis work in Illinois, is showing decided improvement in health and there is every reason to expect his early recovery and restoration to health.

News Notes

—The Ravenswood Hospital, Chicago, opened its new \$336,000 building October 13, thus giv-

ing the institution a total capacity of 125 beds.

—Additional ground has been purchased for the erection of a new building at the Home for Destitute Crippled Children.

—The fourteenth annual meeting of the Illinois Tuberculosis Association was held in Springfield October 29-30.

—At the Illinois State Baptist Convention at Oak Park, October 17, Dr. Arthur W. Allen, Robinson, presented the association with a \$150,000 hospital at Robinson.

—Construction work on the addition to Lakeside Hospital has been started. This structure will be erected at a cost of \$500,000, and will have a capacity of 125 beds.

—Dr. Isaac J. Frisch and Dr. Samuel C. Greenwald of Michael Reese Hospital, Chicago, have purchased the Cottage Hospital, Harvard, owned by Dr. C. M. Johnson, at a cost of \$20,000.

—A meeting of the Chicago Pathological Society was held October 8, under the presidency of Dr. Lydia M. DeWitt. Dr. H. Gideon Wells gave an address on "Leiomyoma of the Stomach with Fatal Outcome."

—The sixty-fifth anniversary of the Illinois Eye and Ear Infirmary was celebrated October 12-13. Lectures and clinics by former interns and a home-coming banquet were features of the two-day program.

—James E. Brown and Mrs. Eva Dallas, according to reports, were each fined \$100 and costs, October 5, when they pleaded guilty to practicing medicine without a license. The couple operated a "cancer cure" and, it was said, had charged patients from \$55 to \$300 for "treatment."

—As a cause of death in Illinois, the automobile now rivals diphtheria and greatly outranks a long list of other common diseases, according to the state health department. Of the communicable diseases, only pneumonia, tuberculosis and infantile diarrhea accounted for greater mortality than automobile accidents.

—At the annual meeting of the Chicago Medical Society, October 10, Dr. Archibald Church was installed as president to succeed Dr. Hugh MacKechnie, who was presented with a diamond ring by the society. Dr. Jeremiah H. Walsh is president-elect for 1924.

The next regular meeting of the Chicago Orthopedic Club will be on Friday, November 9th, at 8 p. m., Room 1308, 30 N. Michigan avenue.

A very interesting program is arranged. Instructional moving pictures or orthopedic operations will be shown. A cordial invitation is extended to all those who are interested. Regular meetings are held on the first Friday of the month except July to October.

—With more than \$1,700,000 contributed in precampaign gifts, Northwestern University's drive for a \$5,000,000 building and endowment fund was formally opened October 22. It is planned to erect a medical school and hospital skyscraper at Chicago avenue and Lake Shore Drive. Schools also of law, dentistry and commerce will be built there.

—The Michael Reese Hospital announces the establishment of two fellowships of \$30,000 each and two research funds of \$50,000 each; the first by Mr. and Mrs. John Hertz, the second by the trustees of the Joseph G. Snyder estate, the third by the trustees of the Gusta Morris Rothschild estate and the fourth by Albert Kuppenheimer.

—Dr. Henry Dwight Chapin, New York, gave an illustrated public lecture on "Improved Methods of Child Saving" at Evanston, October 7, before the Cradle Society, which aims to offer a home to new-born babies deprived of their birthright. Since the home was opened in the spring, at 2039 Ridge avenue, Evanston, forty-two babies have been placed in homes.

—The annual meeting of the American Association of Railway Surgeons was held in Chicago October 18-20, under the presidency of Dr. John H. Rishmiller, Minneapolis, chief surgeon of the Soo Line. The following officers were elected for the ensuing year: president, Dr. Duncan Eve, Jr., Nashville, Tenn.; vice-presidents, Drs. Clay L. Nichols, Louisville, Ky., James Y. Welborn, Evansville, Ind., and H. Clay Manning, Cushing, Okla.; secretary-editor, Dr. Louis J. Mitchell, Chicago (re-elected), and treasurer, Dr. Frederick G. Days, Chicago (re-elected).

—DuPage county, through the board of supervisors, has arranged to provide, at public expense, the surgical and medical care necessary for the welfare of children whose parents are unable to provide such service, according to newspaper reports. The administration of this public service will be carried out under the direction of the county physician, Dr. W. L. Migely of Naperville.

ville. The board proposes to make the service county-wide.

—Among 1,076 children between 6 and 72 months of age examined at the annual better babies conference at the state fair, 380 had enlarged glands in the neck, 155 had some abnormality of the feet and legs, 199 had some minor skin trouble, 76 had nutritional disturbances, 97 had decayed teeth, and 403 had enlarged tonsils. There was but one child that measured up completely to the standard of measurements used. In all, 614 of the 1,076 examined were registered as having been breast fed, with 130 others recorded as having been partly breast fed. Of the whole number, 533 were boys and 543 girls.

—Suit was filed in the circuit court October 1, asking approval of plans to raze the old Rush Medical College buildings at Harrison and Wood streets, and to erect a \$400,000 building to be known as the Rawson Clinical Laboratories, for which Frederick H. Rawson donated the sum of \$300,000. The University of Chicago, according to the plan, will take over the property and build the new laboratory. A contract between the college and the university has been tentatively adopted, pending the approval of the court. A program which provides for the expenditure of \$5,300,000, gifts to the university for the advancement of medical education, is to be carried out, the bill states, includes the building of a hospital of 200 beds on the university campus.

—Examinations for entrance into the Regular Corps of the U. S. Public Health Service will be held November 12 at Washington, Chicago and San Francisco. Requests for information or permission to take the examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

—At the September meeting of Madison County Medical Society, Dr. George Thomas Palmer of Springfield gave an address outlining a program for tuberculosis work in that county.

—After three days' search \$3,000 worth of radium thrown into a toilet by mistake in the office of Dr. H. P. Bierne, of Quincy, was found in the sewer pipe about seventy-five feet from the starting place.

Deaths

WILLIAM J. DONAHUE, Plainview, Ill.; Barnes Medical College, St. Louis, 1898; member of the Illinois

State Medical Society; at one time member of the state legislature; aged 66; died September 26, at St. James' Hospital, Pontiac.

ALONZO MATHEW EDWARDS, Marion, Ill.; Vanderbilt University Medical Department, Nashville, Tenn., 1894 member of the Illinois State Medical Society; president of the school board; served in the M. C., U. S. Army, with the rank of captain, during the World War; aged 54; died, September 8, of heart disease.

WILLIAM F. HICKS, Raymond, Ill.; Missouri Medical College, St. Louis, 1871; Chicago Medical College, 1880; formerly coroner and member of the board of education; aged 87; died September 19, of senility.

EDGAR P. COOK, Mendota, Ill.; Northwestern University Medical School, Chicago, 1895; aged 53; died October 15, of pneumonia and septicemia, at the People's Hospital, Peru. Dr. Cook was a prominent member of a family of physicians, his grandfather having practiced in Mendota and vicinity from 1854 to 1871; his father until 1902, and his surviving brother, Dr. Charles E. Cook, since 1881. Another brother is Judge Wells M. Cook of Chicago. He visited Europe several times and spent a year in professional studies in Vienna and Berlin. Active in medical society and fraternal work, he was also in demand as a speaker on educational subjects.

WILLIAM CULLEN BRYANT JAYNES, Rockford, Ill.; Chicago Homeopathic Medical College, 1882; aged 69; was found hanging on a farm near Durand with gunshot wounds in his chest, August 30.

ROLLIN G. KNAPP, Chicago; Chicago Homeopathic Medical College, 1893; Rush Medical College, Chicago, 1896; Hahnemann Medical College and Hospital, Chicago, 1905; aged 64; died October 12, of myocarditis.

JOSEPH FRANCIS KOZLOWSKI, Chicago; Harvey Medical College, Chicago, 1901; a Fellow, A. M. A.; aged 53; died suddenly October 2, of myocarditis.

RURIE OLIVER LACEY, Elizabethtown, Ill.; Eclectic Medical Institute, Cincinnati, 1887; member of the Illinois State Medical Society; aged 58; died August 25, of carcinoma.

WILLIS A. MELLON, Rockton, Ill.; Hahnemann Medical College and Hospital, Chicago, 1873; aged 76; died September 30, of senility.

ELIJAH S. SMITH, Urbana, Ill.; Chicago Homeopathic Medical College, 1896; a Fellow, A. M. A.; Hahnemann Medical College and Hospital, Chicago, 1905; aged 67; died September 24.

WILLIAM F. STOKES, Norris City, Ill.; University of Tennessee College of Medicine, Memphis, 1882; aged 67; died September 20, following a long illness.

B. F. ST. JOHN, Stonefort, Ill. (licensed, Illinois, 1877); aged 88; died, September 27, of senility.

OMAR OAKLEY HALL, Milford, Ill.; Northwestern University Medical School, 1879; aged 65; died September 6.

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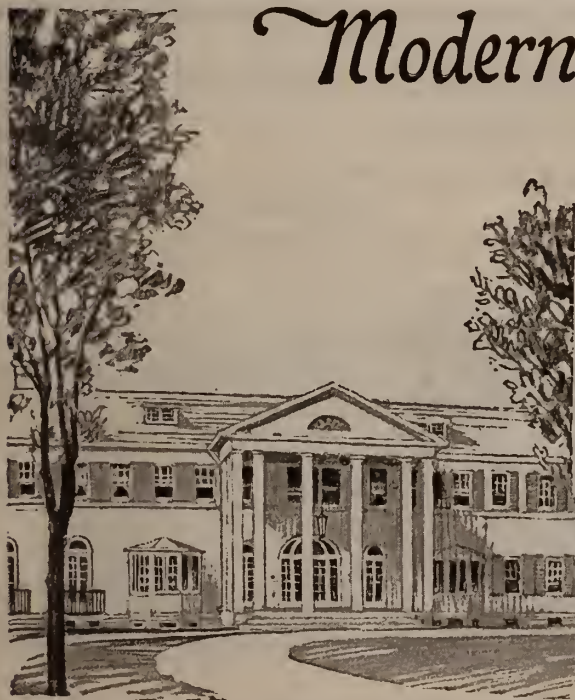
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Physician-in-Charge

FREDERICK C. GESSNER, Asst. Physician

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State Society will pay no bills for legal services except those contracted by the Committee. Notify the Chairman at once. Do not employ attorneys.

Send original articles and all communications relating to advertisements to Dr. Charles J. Whalen, Editor, 6221 Kenmore Avenue, Chicago.

Membership correspondence to Dr. Wm. D. Chapman, Silvis, Ill.

Society proceedings and news items and changes in the mailing list to Dr. Henry G. Ohls, Managing Editor, 927 Lawrence Avenue, Chicago.

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Editorial

ANSWERING SOME QUESTIONS

What is the Lay Publicity Committee organized to do?

How will it operate?

What is publicity?

Is publicity the same as advertising?

Does the Committee have to purchase newspaper space?

What newspapers are to publish the Committee's news articles?

Inquiries, such as these, coming from physicians throughout the state indicate the necessity of publishing a more detailed explanation of the plan, method and scope of the publicity campaign by which the Illinois State Medical Society hopes to bridge the ever-widening gap between the medical profession and the public in Illinois.

Questions have arisen not only as to details of operation, but also as to the fundamental and basic principles involved, until it has become apparent that a great many members of the State Society, like the public itself, have an indefinite and, in many cases, distorted understanding of just what ideas are embraced by the word "publicity." The purpose of this article is to make clear just what the Lay Publicity Committee's plans contemplate and how they are to be put into operation.

What is publicity? "Publicity is the art of interpreting to the public the ideas of an organization, profession, or group so that these ideas will be understood," according to the definition given by Wilder and Buell in their book "Publicity," copyrighted by the Ronald Press Company, New York City. "It is the science of transmitting such ideas so that the public will react in the desired way."

Various methods can be employed to bring about this result. Advertising, that is, space bought in the columns of a newspaper, is one of these methods, *but only one*. While advertis-

ing is the proper medium for promoting the sale of *goods*, it is an extremely stubborn and inexpedient medium for the transmission of *ideas*.

Public opinion is playing an increasingly important part in the various affairs of life. Any organization, profession, or group, whatever its field of activity, must spread and popularize its ideas in order to maintain its position *regardless of how incompetent or unfit its competitors may be*.

The growth of pseudo-schools of medicine and the success of quack doctors is a case in point.

People do not go to such so-called doctors because they prefer them, but because they have *heard about them*. The recognized medical profession has been singularly lax in telling the public just what services it is adequately equipped to perform, and the public, hearing of the alleged abilities of the pseudists, believes what it hears. This situation creates a definite need. Steps must be taken to mould public opinion so that it will hold the medical profession in the light it deserves. To accomplish this, there must be a general dissemination of facts and information so that the public will be equipped to draw its own conclusions and thus to distinguish between the counterfeit and the genuine.

Advertising is barred. "Publicity" is the term by which this activity of moulding public opinion is usually called. This word has been used as though it were synonymous with "advertising," but advertising has a well-marked field of its own, namely, that of familiarizing the public with a trade name or a manufactured product chiefly through space in periodicals for which the manufacturer has paid.

This is really a subdivision of the whole field of publicity—a branch which has no part in the Lay Publicity Committee's program. The other branches of publicity are *the press*; (news articles and editorials which are published free of charge) *the lecture platform*; the circular letter, and in limited forms, the church and stage.

The press and the lecture platform are the most powerful mediums by which public opinion is moulded, and to these two the Committee intends to restrict its activities. What, then, is the work-

ing plan by which these mediums are to inform the public of the medical profession's activities? How will the press be used? How will our articles get into print? And last, who will be our speakers and where will they be obtained?

With regard to the press it may be said that newspapers will print anything which will interest a majority of readers. News of the activities and progress of the medical profession can be translated by the individual reader into terms of his own health and welfare and that of his children. Announcement

of the discovery of a bona fide and recognized cure for cancer would make a front-page story in every newspaper in the country.

News of such revolutionary nature, however, is not required of an article to gain its entrance to the news columns. The story of the Schick test and toxin-antoxin would be news to thousands of persons. The story that deaths from typhoid fever have been reduced 84 per cent in twelve years in the large cities of the United States, also would attract attention. Every issue of the ILLINOIS MEDICAL JOURNAL contains real news, but it is rarely published because news-

IS YOUR COUNTY HERE?

County Societies which have not filled in and returned to the Bureau of Publicity the questionnaire which was sent out last month, are urged to submit their answers as soon as possible.

Work will be started immediately in the counties which already have sent in the required information. More than seventy counties have sent in the questionnaire properly filled in and in many cases valuable information was given in addition to that which was asked.

That the state is greatly interested in this project is emphasized by the fact that forty counties were heard from in less than thirty-six hours after the Bureau had sent out the questionnaires.

At the time this went to press the following counties had not been heard from:

Brown	Kankakee	Shelby
Champaign	Knox	Tazewell
Clay	Macoupin	Wabash
Crawford	Marion	Warren
DuPage	Mercer	Wayne
Edwards	Monroe	Will
Franklin	Pope	Woodford
Gallatin	Randolph	
Hamilton	Schuyler	
Henderson	Scott	
Jefferson		

paper editors and reporters have not the time, if they had the inclination, to ferret it out and translate it into language which the layman can understand.

This is the job of the Lay Publicity Committee and its publicity director, who at present are preparing a series of articles to be submitted for publication in Illinois newspapers. Questionnaires were sent out last month to County Secretaries, asking them to fill in the names of newspapers in their respective localities and also to give the name of some doctor who was acquainted with the editor or publisher of the newspaper. To date all but a few counties have sent in the required information, and as soon as most of the tardy answers are received, the Committee will make its first attempt at securing extensive, state-wide publicity.

How the Plan Works. When the articles have been approved by each member of the Committee and the facts contained in them found satisfactory, the series will be mimeographed and a copy sent to each physician on file as having a contact with a newspaper. These men will be asked to place the articles in the hands of the newspaper publisher with the request that they be printed.

Since there are more than 800 newspapers, daily, semi-weekly, and weekly, published in Illinois, it is too much to hope that all of them will be willing to reprint the articles. The Committee, however, hopes for the greatest possible return and further, that publishers and editors will realize that the campaign is motivated only by the desire to give the public the facts concerning medical science as it is known today. References to the pseudists will be avoided and shall not be dignified by denial, ridicule or exposure of their alleged abilities. All that the public wants to know is the latest developments in medical science and where this service can be obtained, and it is the intention of the Committee to shape public opinion so the answer to this question will be obvious.

Any physician who knows a newspaper editor or publisher, no matter how large or small the paper, is requested to communicate with the Committee. There are many newspapers throughout the state with which no contacts as yet have been established, and it follows that the more newspapers we have open to us the more successful

our campaign will be. If you know persons with influence on any paper, write to the Committee today.

Plan Speakers' Bureau. Preparing for the activities on the lecture platform, the Committee at present is cataloguing names of physicians throughout the state who can talk on their feet. The demand for men who can make short talks to Rotary clubs, Kiwanis clubs, Chambers of Commerce and many other lay organizations, as well as via the radio, always is greater than the supply. This is especially true with reference to doctors. The public in general acknowledges that the doctor is an educated man, educated particularly in subjects with which the public is unfamiliar, but in which it is vitally interested, and consequently the public is willing to listen when the doctor talks.

Therefore, just as soon as a list of such men can be compiled and certain data collected, the Committee is going to let it be known that it can supply such speakers. In order to aid these men and give them something definite to talk about, the Committee is to prepare outlined speeches, giving the points to be emphasized. Work of preparing these outlines will begin at once and they will be ready for distribution probably as soon as the list of speakers is compiled. By using this system physicians throughout the state will be concentrating on the same ideas, and the results of this concerted effort soon will be apparent.

Information Sought. If you are able to make a short talk or if you know of any physician who can, send the information to the Committee. Only by the concerted action and harmonious co-operation of every member of the recognized profession will this campaign attain its greatest success. To do his part is not only a duty of every physician, but it is becoming more apparent that it is a necessity if scientific thought is to reach any large part of the population.

Make the campaign a success. If you have a contact with a newspaper or if you can be one of our speakers, send your name to the Committee today.

Address all communications to:

ILLINOIS STATE MEDICAL SOCIETY,
Bureau of Publicity,
25 East Washington Street,
Chicago.

WE SAID SO IN 1911. WE SAY IT AGAIN

The prophecy of 1911 has become the peril of 1924. Lacking unification for mutual protection the medical profession stands in a fair way to become the prey of its own indifference to public affairs and economic shifts. This sacrifice of the mother science will bear evil fruit in the consequent wreckage of the public health—the basic wealth of any nation.

In the ILLINOIS MEDICAL JOURNAL for September, 1911, the adverse legal and economic situation confronting the profession today was forecasted by the present Editor of the JOURNAL, who was at that time chairman of the Public Relations Committee of the Chicago Medical Society and a member of the state society's legislative committee. The article was headed "The Outlook for the Medical Profession from Legislative and Economic Viewpoints." The dour prophecy made then has justified itself. What was then the writing on the wall is now the writing on the statute books. What the editor said then, he says again, here and now and with even more ramifications and decidedly more emphasis.

Extensive quotation from that article may prove pungent advice to the doubters. Eliminating data pertaining to the closing session of the legislature the article stated:

"Economic conditions are admittedly not as favorable today as they were ten or twenty years ago. Earnings of a large proportion are less than that of those belonging to organized labor. This is especially noticeable when we compare the declining earnings of general and contract practitioners with the advancing earning of artisans.

"Is it either consistent or proper that highly educated, well-trained men who have spent many years at a heavy pecuniary cost acquiring particular knowledge and skill, for this at best arduous profession, must be forced to subsist upon a pittance that a miner or a mechanic would reject with scorn? The cost of living and the necessary professional equipment are too high when compared with the compensation that most physicians receive.

"Society cannot afford to support its physicians indecently. Yet society demands of physicians a certain standard of living, but does not pay them liberally enough to maintain that standard. Is it any wonder that so many mem-

bers of the profession have drifted into various "cults" and "pathies" where the prospect of a decent remuneration is greater—all this in violation of the principles of the code of ethics held out by the regular schools? It is easy to be ethical if your stomach is fully at peace with the world. In the practice of medicine, men do not cease to be human. In this work as in every other, the law that declares that "Self-preservation is the first law of nature," is frequently a defense and shield for an infraction of the so-called code from economic necessity.

"Let us study the signs of the times for a moment. Sanitation and preventive medicine are materially reducing disease. Hygiene, not medicine, is the slogan of the day. Prophylaxis, not cure, is the watchword. *The work of the physician will be eliminated finally by being absorbed as a function of the state.* Fine economic prospect, this, for the doctor! Again, the abuse of medical charity as practiced in our hospitals and dispensaries is a powerful factor operating to reduce the physician's income. Competition is becoming sharp. Throughout the country thousands of graduates are being turned out by competing medical colleges, thus augmenting the number of those practicing medicine. The effect of this competition is cutting down the remuneration of medical men.

"Spread of popularity of 'quackish' medical fads is more prevalent than ever. The tendency is rampant to multiply these in the treatment of disease.

"Forty-eight new cults have arisen in America within the last ten years, many of which claim to practice the healing art in some form. Some of them have grown at tremendous speed and at the expense of regular medicine and the health of the people; as, for instance, pseudo Christian Science, and allied cults and various "pathies," all rejoicing more or less in recognition from the laity. While many of them appeal chiefly to ignorant credulity, unfortunately the clientele encouraging such impostors is not composed exclusively of silly women and senile men. Whether one or all of these classes is responsible for the deplorable conditions matters not. Every physician must look the situation squarely in the face.

"This critical condition is not confined to Chicago, or to Illinois, but is a burning question

everywhere. In the old world, pauperization of the medical profession has become a veritable curse. In Austria, Germany and England it has become necessary for the doctors to organize medical protective leagues in sheer defense of their means of subsistence. In England conditions have become such that seven and one-half cents is paid per call, with this fee including surgical dressings. In the House of Commons there has been introduced recently the national insurance bill which provides for wholesale conversion of private into contract practice. The English profession is so aroused that the lay and the medical press are deluged with letters from angry physicians. So acute is the situation that a special meeting of the British Medical Association was called recently and lasted for two days. The first day's session continued from 10 a. m. until midnight.

"The Association has 22,000 members—some-what more than one-half of the profession. However, it represents the whole profession in its fight against that bill. For the purpose of fighting it, the physicians are daily joining the association in large numbers. In London was held a mass meeting of more than 1,500 doctors—the largest meeting ever held to consider a medico-political question. On the platform were the leaders of the profession, including the president of the association, the president of the Royal College of Surgeons, the president of the Royal College of Physicians, and others. The system of contract practice was loudly denounced and the sentiment wildly cheered. The physicians agreed to present a solid front in their fight in defense of their rights. The bill has done one thing that seemed impossible previously—that is, to unite thoroughly the whole profession in England.

"Not only in England is the trend towards communistic and contract medicine. In Bohemia, a new social insurance act will become a law soon; it will diminish at once the doctor's scope, for it will turn his private patients into the domain of practice served by the clubs. Zurich, Switzerland, is determined to supply medical and lay attendance in all obstetric cases in that city. The socialistic wave that is breaking over the whole world to things in general is having also a marked effect on the future medical status there. *Here, as in Europe, we are bound to be brought within the scope of state service unless*

we wake up and unite against this encroachment upon individual initiative and incentive to progress.

"In New York, Boston, Philadelphia, Baltimore and other cities in the United States, similar conditions exist, and organizations similar to those established in Europe have been formed to fight the encroaching evils which are acting so detrimentally to the profession everywhere. A feeling exists among large numbers of the medical profession, and makes itself manifest from time to time, in letters and articles in the medical press—that medicine should be represented more numerously than it is in the legislatures. There seems to be an especial attitude of aggrievance over the much prated circumstance that lawyers constitute so large a proportion of the personnel of our legislative bodies. Dr. Reed was perhaps the first to start this wacry, and it is being reiterated and echoed in periodic outbursts. "We should have at least as many physicians as lawyers in Congress," says a recent correspondent in the *Lancet-Clinic*.

"In the Forty-seventh General Assembly there were six physicians, while over fifty per cent of its members were lawyers. Is it any wonder that the quacks were able to emasculate the medical practice act, and so curtail the power of the State Board of Health as to prevent prosecutions of unlicensed practitioners, quacks, and the like?

"Up until last year our legislators considered the medical profession a political non-entity, claiming that medical men take no interest in civic affairs, and for that reason heretofore doctors have been eliminated as a factor that in any way contributing to a legislator's failure or success at the polls. In its report two years ago it was said by the Editor through the Public Relations Committee of the Chicago Medical Society: 'The medical profession will never get what it is entitled to, in the way of legislation, until *it wakes up and becomes a factor with which to be reckoned politically*. This can be done best by bringing the lawmaker to a realization of the tremendous influence of organized medicine, and the votes that politicians will lose if the medical profession is not given respectful consideration.'

"Rarely is the doctor's advice on public questions, either sought for, or listened to. The physician is looked upon as being 'only a doctor.' For this negative esteem in which he is held the

physician has only himself to blame. With rare exceptions a physician has no opinion upon subjects outside of his own profession. Few physicians keep themselves posted upon current events. Yet all industrial questions concern vitally the doctor. Deep study of some of the different phases of industrial questions would be well worth the while of every doctor, both as a benefit to society and to himself.

"The time has certainly arrived when the profession must become more aggressive, taking a keener interest in public affairs and encouraging its members to leadership among men. As an organization, medical men could not only ask for what they felt was needed for the good of the profession and the public health, but as an organization medical men would be in a position to demand what was *needed* and asked for.

"Medicine, as has been shown, is undergoing a metamorphosis. The doctor should not be left to shift for himself, to survive if he can or perish if he must. Can anything be done towards protecting the individual member of the profession by curbing the great forces operating now to engulf him? There can be. In medicine as in other forms of business, *unifications for mutual protection must be brought about. In organization lies the lone hope.* Illustration of what may be accomplished when the 11,000 physicians in Illinois become organized and work in harmony to insure the safety of every medical certificate, may be found in the achievements connected with Senate Bill 140 and House Bill 380, even with our present imperfect organization.

"Let us then, at the earliest possible moment, arouse ourselves to a hearty and unselfish co-operation, combining in an offensive and defensive alliance against the numerous forces seeking to lower the standards of education, licensure and practice, and letting down the legislative bars against charlatanism and quackery. It is vain for a few to make a stand against encroachment of private patients and public bodies, if within our own profession are to be found those who are willing to accept what others who have at heart the true interests of the profession, reject with indignation. It is against human nature to expect that men should present a bold front to the common foe, if they are morally certain that they will be stabbed in the back by those within their own ranks.

"The old saying runs 'In union there is

strength.' It has been true for ages. Now that the struggle for existence is growing fiercer, this axiom has passed beyond the region of platitude. Doctor, the fight is on! This means a battle royal against entrenched power, and it is bound to be a long, desperate conflict. If the profession is to survive as a body of self-respecting, free men, progressive and decently remunerated, you as an individual must do your part. Will you?"

All that was said then, 12 years ago, can be repeated, emphasized and amplified a thousand times. We said it then; we say it now, and cite also another warning.

Hark back to the address made by the Editor when assuming on May 21, 1913, at Peoria, Ill., the office of president of the Illinois State Medical Society. This speech was published in the JOURNAL for July, 1913. Pertinent paragraphs chosen from that prophetic warning run:

"The many problems confronting us are overcome only by co-operation, out of which comes organization to achieve the common goal. The needs and the advantages are obvious of such co-operation in our profession. If we are to exist in perpetuity, mutual support must be our slogan.

"The doctor who tries to go it alone in the practice of medicine in this day is making a great mistake. The field is so large, and so many and varied are the interests involved, that no man can keep in touch with them all, without constant help from his fellows; on all sides he is surrounded by difficult problems, many if not all of which can be solved only by co-operation.

"The legitimate practice of medicine has fallen upon perilous times. This is evidenced by the writings of eminent men and by the unrest and agitation of the medical profession the world over, due in part to the fact that sanitation and preventive medicine reduce disease to a negligible quantity; to some extent to the fact that new cults and pathies have cut into the legitimate sphere of the practitioner, and most of all to the encroachment on the work of the physicians by unworthily bestowed charity from the hospitals and dispensaries, to persons able to pay. These factors and numerous others, all operate to reduce the physician's income.

"*Added to all these bogies is the specter of a new ghost in the trend of the times towards communistic medicine. It is the belief of the writer that the practice of medicine, surgery and the*

allied and analagous specializations, will become government, state, and municipal functions in the not far distant future. A fine outlook for the doctor, is it not? And what of the national health?

"For illustration look to England! View Germany's medical debacle along with all else. Conditions in England attained such impossibilities that the doctors had to organize finally in sheer defense of their own means of existence. However, in England, establishing methods for defense was deferred too long. So, in spite of the belated protests of the profession, there was foisted upon it the obnoxious national insurance act.

"Shall we in America procrastinate in this matter as our British brothers did, or shall we take steps now to overcome the evils confronting us? By silence we are renegade to our own interests.

"Co-operation in medical practice is a present day necessity. All professional men should be acquainted thoroughly with their own rights, privileges and power for safeguarding their own vital interests as well as the interests of the community.

"In Illinois, an organized medical profession with its 10,000 members could accomplish much in the way of needed reform and would be able, also, to do much towards preventing further encroachments of evils threatening now to engulf us.

"The watchword of the new administration will be alertness along the lines of organization and co-operation; justice for all practitioners, and a helping hand to the general movement that has for its aim the physical and moral uplift of medicine in the State of Illinois."

What was written then, let it be repeated, has been borne out by the trend of events. If organization were necessary thirteen years ago it is a hundred times more so now. For the sake of the medical profession, the mother science and their own economic situation it is the pressing need of each and every physician not only in Illinois but in the entire United States to awake to the necessity of organization for the sake of defense and progress.

WE SAID IT THEN. WE SAY IT NOW
—ORGANIZE AND FIGHT THE FIGHT,
OR GO DOWN LIKE FLOTSAM UNDER

THE FLOOD OF ERROR AND INJUSTICE.

Note: The quotations cited here were sent into this office with the penciled comment as to how beautifully the prophecy has been fulfilled and how pertinently the warning continues. We are sorry the sender did not go back further into the archives. As early as 1905 the Editor had begun to sense foregathering evils and to warn against them.

THE UNETHICAL PUBLIC HEALTH INSTITUTE OF CHICAGO

The following three editorials from the *Bulletin of the Chicago Medical Society* under dates of November 3rd, 10th and 17th respectively cover the public health institute menace so thoroughly that the Editor of the JOURNAL frankly admits his inability to improve on the editorials mentioned and therefore reproduces all of them in full and at the same time compliments Dr. R. R. Ferguson, the Editor of the *Bulletin*, on the work he is doing in publishing the unethical side of the methods used by this institution to procure business.

THIS FROM THE BULLETIN NOV. 3rd. THE UNETHICAL PUBLIC HEALTH INSTITUTE

Commencing with this issue of the *Bulletin* there will appear the first of a series of articles on the Public Health Institute (unethical), giving names, facts and figures, which not only the medical profession and the people at large should know, but also those men connected with that Institute who are engaged in other activities of life and business, but who are lending their good names to a cause which temporarily is flourishing, but which in the end is doomed to failure. No institution which is not founded on the high principles which have governed the practice of medicine and surgery for hundreds of years can expect to survive; nor can any medical institution survive which is founded on the principles of using the daily press in advertising its wares in a manner which even the most noted quack, Sweaney, in his rosiest days would blush for shame at the modesty of his own advertising when compared with the advertising carried on by the Public Health Institute.

There are two fundamental reasons why such an institution must eventually fail.

First: It is using exactly the same method of obtaining business (unethical newspaper advertising of the most brazen type) that the notorious quacks of yesteryear used, and which some of the cults of today are using. Such methods of obtaining business have always been and will always continue to be unethical, both for the individual and for the institution.

Principles of Medical Ethics Advertising:

"Chapter 2, Section 4. Solicitation of the patients

by Physicians as individuals, or collectively in groups, by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communication, is unprofessional."

Second: This reason has a far more important bearing on its relation to the men, women and children patients of the Institute, and will be the prime factor in causing that Institution eventually to close its doors, in spite of the fact that money is being lavishly expended on full page newspaper advertising. No member of any reputable medical society, specialist or general practitioner, high-brow or low-brow, colored or white, will ever lower himself in the estimation of his fellow practitioners throughout the United States by treating patients in such an unethical institution, or of allowing his name to be mentioned as a consultant in such an institution.

Who, then, are the men giving treatments at this institution?

AND THIS FROM THE BULLETIN NOV. 10th.

MEDICAL COLLEGES AND THE PUBLIC HEALTH INSTITUTE

Before giving the names of those employed at the Public Health Institute it might be well to call the attention of the Medical Colleges to the fact that some of their students are still working at the Institute.

We take it for granted that every member of the faculty of our Medical Schools in Chicago is either a member of the organized medical profession, or is ethical to the extent that they abhor unethical newspaper advertising. It would seem only just and fair therefore that the faculties of these colleges should see to it that none of their students be allowed to work for an institution which uses such methods of obtaining business.

The Chicago Medical Society called the attention of the colleges to this last year, but evidently nothing was done about it as students are still at work at the Institute helping to grind out the hundred of well to do patients who are getting nothing more for their money than ordinary dispensary service.

Surely this institute is not the place to teach our students how to best handle venereal cases, since they have no specialists on the staff, nor any well known consultants to call on for help when needed, nor will they ever be able to obtain such men.

The doctors at the head of this institute are only general practitioners who have obtained a position at half time or whole time pay, and have thereby become experts? We believe any good medical practitioner can treat venereal cases just as efficiently as any member of their staff and at prices just as reasonable as is done at the institute.

We believe that all Medical Colleges in Chicago should see to it that their students are taught the meaning of medical ethics, so that when approached by any unethical institution their reputations may remain untarnished. Our hospitals should also be

warned against allowing their internes to have hours for pay at any but a reputable dispensary.

AND THIS FROM THE BULLETIN NOV. 17th.

BOARD OF DIRECTORS OF THE PUBLIC HEALTH INSTITUTE

The men who are lending their names to the Public Health Institute may have a good motive back of their work in an endeavor to awaken the public conscience to the dangers of venereal disease; but are they justified by their results in flinging the ethics of the medical profession in the gutter, when the same results may be accomplished in an ethical manner, and perhaps with the sanction of the medical profession?

Every trade or profession has the code of ethics by which its members are disciplined and through which they live and have their being. (It is even said that newspapers have such a code.) We know that attorneys, architects, contractors, bankers and many of the other trades and professions have such a code even though it may not be in writing. It may be an unwritten law which has stood the test of time, but it is a code of honor.

Why then should the medical profession, even at the solicitation of the Board of Directors of the Institute, show any leniency to those of its own members who deliberately accept positions with this institution, thereby obtaining business in a manner denied to other members of the profession? We have jurisdiction over our own members but not over the Institute.

We feel sorry for those men who have thrown their own profession to the four winds of heaven in order that they may work (for a while at least) for a Board of Directors (or are they at the mercy of the boss?) who perhaps give their future welfare no thought whatever.

It has recently come to our attention that even physicians not belonging to the organized profession are resigning from the institute because of its unethical character.

From now on we hope it will never be necessary to expel any member from the Chicago Medical Society on account of his affiliation with the Public Health Institute, unless perchance it be some one or more of the consultants whom we understand are receiving patients from the Institute at the present time, but not openly.

How long will it be before the public in general will learn that they are not being treated by the experts and specialists whom they are led to believe are employed by the Institute? How long will it be before the public in general will learn that many of the treatments are being given by lay individuals in the employ of the Institute?

The Board of Directors of the Public Health Institute may be composed of big men in business, who are actuated by right motives and who are willing to spend thousands of dollars of their own money to see their pet scheme continued indefinitely. But they are not physicians nor have they enough money to buy the services of our best physicians and consultants to

work in their unethical institute. We wonder how long it will be before the Board of Directors themselves will have to man the institution and give treatments.

ATTENTION EYE, EAR, NOSE AND THROAT MEN OF THE ILLINOIS STATE MEDICAL SOCIETY.

Any member of this section who wishes to present a paper, open a discussion, display any new instrument or apparatus or conduct a Diagnosis Demonstration Clinic at the State Medical Meeting in Springfield, May, 1924, in order to secure a place on the program will please write at once to the secretary, Dr. William R. Fringer, William Brown Building, Rockford, Illinois.

SECTION OF PUBLIC HEALTH AND HYGIENE

Those desiring to read a paper in the section on Public Health and Hygiene at the forthcoming meeting of the Illinois State Medical Society at Springfield, May, 1924, kindly communicate with the secretary of the section, D. J. Lynch, M. D., 6548 Glenwood Ave., Chicago. Papers are limited to twenty minutes.

MEETING OF THE AMERICAN ASSOCIATION FOR THE STUDY OF GOITER.

The American Association for the study of goiter, composed of surgeons, internists, anaesthetists, pathologists and radiologists, will have their annual meeting at Bloomington, Illinois, January 23-25, 1924.

Detailed programme of the meeting will appear in the January, 1924, issue of the JOURNAL.

I DOFF MY HAT TODAY TO THE PHYSICIAN.

A TOAST TO THE DOCTOR.

In the name of thousands of unbroken homes in which midnight hand-to-hand fights with death have been fought and won; in the name of thousands of lives rescued from abnormality and made useful; in the name of unshed tears and forestalled pain and baffled death—I doff my hat today to the Doctor. May he never have use for his own medicine. May each moment of pain he has saved others, shine in the crown of his life like a bright star. May the children to whom he has saved parents and the parents to whom he

has saved children take time to acknowledge the doctor's worth. May his patients pay him his bill. And in the inevitable hour may a certain grim adversary recognize a noble foe and deal gently with the doctor.—*Detroit News*.

MATERNITY BENEFIT SYSTEM IN AUSTRALIA A FAILURE.

Dr. Edith Barrett recently, before the All-Australian Women's Conference in Melbourne, discussed the value of the maternity bonus system established in Australia ten years ago whereby every mother is eligible to a bonus of five pounds upon the birth of a child. Dr. Barrett stated that the system has failed to accomplish results for which it was instituted.

ALL PHYSICIANS ENTITLED TO TREAT PATIENTS IN THE MUNICIPAL SANITARIUM.

The Illinois City Tuberculosis Act, as amended at the forty-eighth session of the Illinois Legislature, 1913, reads as follows: Article Two. "All reputable physicians shall have equal privilege in treating patients in said sanitarium."

NOTE—It is about time that the physicians of Cook County get busy and assert their rights under the law. The present method of handling the tuberculosis situation in Cook County amounts to a huge political machine and has built up a gigantic tuberculosis trust.

CALIFORNIA THE BATTLE GROUND FOR THE LEGAL RECOGNITION OF VARIOUS CULTS

California has been the battle ground for the legal recognition of various pseudo-medical cults and the acceptance of various forms of socialized medicine. The regular medical profession of that state has awakened to the situation, but has been a little late in recognizing the dangers that threaten. It will take a long time to offset the ill effects of many movements that might have been checked had they received appropriate attention in their infancy. At present it is necessary for the medical profession to fight for its very existence. It will win out in the end, but sometimes the lane is long before coming to a turn.

Concerning the position of the medical profession on the Sheppard-Towner law, it is pointed out that an actual survey shows that the physicians of California give an average of one-third of their time to service for which no fee is charged, and that California physicians do not refuse their services in childbirth, regardless of the patient's ability to pay,

nor do they refuse their services during the period of gestation and the necessary period after birth. By resolution, the state medical society has gone on record as stating that every physician's office in California is a medical center to which any and all people may go and receive services upon the condition that those who cannot pay, or who can pay part, will receive the same consideration as those who can pay the regular fees. The California physicians are ready and willing to increase the amount of free work, and they are willing to help both with services and taxes the state and county health authorities—to extend help wherever help is needed to those who are unable to pay for it themselves, but they do not feel obligated in any way whatsoever to extend this offer to the Department of Labor in Washington and to lay people who already in many instances are busy undermining their physicians in California and other states. Foisting the Sheppard-Towner law on the states is like attempting to foist compulsory health insurance on the states, and is but another step toward the socialization of medicine. What has occurred and is occurring in California is going to occur in every state in the Union unless the medical profession awakens to the dangers that threaten.—Indiana State Medical Association.

BRITISH PHYSICIANS CALL STRIKE AS PROTEST AGAINST CUT IN FEE

(By the Associated Press)

LONDON, Oct. 19.—A strike of several hundred British physicians on January 1 next was decided upon today. The strikers are members of the "panel doctors' union," which serves 15,000,000 men and women contributors to the national health fund. The decision to strike was taken at a conclave of the doctors in London as an act of refusal to accept a reduction in fees.

At present the doctors get 9s 6d annually for each patient registered on their respective lists. The minister of health has proposed reducing the rate to 8s 6d.

The health fund is an outgrowth of the national insurance act passed when Lloyd George was chancellor of the exchequer in 1911, being one of his many measures aimed to help the masses. During employment the workers pay 5d in the case of men and 4d in the case of women weekly, the employers contributing an equal sum into the fund. Heretofore the approved societies to which all the contributors belong had paid from their reserve funds 7s 3d annually for each member, the government making up the difference between that sum and the doctors' fees.

The system cost the taxpayers more than £26,000,000 in 1921 and the government proposes to cut the rate and have the societies foot the entire bill. The societies have refused to do this, thus bringing another party into the dispute.

SAN FRANCISCO JOURNAL REBUKED

The following letter, written by Thomas W. Huntington, chief surgeon of the Western Pacific Railroad Company, will, it is felt, express the sentiment of our members:

"San Francisco, Cal., Sept. 21, 1923.

"Andrew M. Lawrence, Esq., Editor The San Francisco Journal, San Francisco, California.

"Dear Mr. Lawrence—From a purely personal angle, permit me earnestly to protest the recent publication in your columns of an article from Pearson's Magazine. Without proof or warrant, said article unqualifiedly condemned the medical treatment of our late lamented President during his last illness, and viciously assailed the character and judgment of those to whom was assigned the grave responsibility of his care. This assault, lacking evidence or justification, was manifestly inspired by a desire to discredit and humiliate a body of men whose repute in scientific medicine is above reproach.

"As a subscriber to The Journal from its inception, and voicing expression from many high-minded men of my profession, this incident is a sad disappointment. After reasonable reflection we fail to understand the motive which prompted dissemination of matter which scientifically and ethically is without semblance of credibility. Medical men universally court helpful constructive criticism. Baseless misstatements we resent. Yours truly,

"T. W. Huntington.

"978 Mills Building, San Francisco, Cal."

TESTICLE TRANSPLANTS

Dr. Lichenstern, in *Zeitschrift fur Urologie*, Leipzig, has now record of eighteen cases, and in all of them the implanted testicle healed in place and has apparently answered the desired purpose for years to date. In four instances he used normal testicles, and in the others undescended testicles. In eight of the cases the operation was done to cure pure homosexual impulse and the cure was complete. This success corroborates Steinach's discovery of female elements in the sexual glands of the homosexual persons examined. In treatment of eunuchoidism, transplantation of a testicle from the father seems the preferable technic. Muhsam's experience with three cases confirms that the implanted testicle continues its internal secretion indefinitely. Other communications were on the relation of the prostate to the sexual function, on the chemistry of the internal secretions, and on organotherapy in gynecology, etc.

WHEN ARE SYPHILIS AND GONORRHEA CURED?

Both syphilis and gonorrhea are curable, as a writer in the *Urologic and Cutaneous Review* (August, 1923), properly states, but he is a wise man who knows when either of them is cured. In syphilis there are no infallible criteria of cure. In gonorrhea negative smears in repeated succession are indica-

tive of probable cure; a negative smear after milking the prostate and a negative smear after a provocation injection of a ten per cent silver nitrate solution are strongly corroborative of cure.

AN OUTRAGEOUS TAX ON PHYSICIANS

The Act of Congress of December 17, 1914, known as "The Harrison Narcotic Law," as amended by the Revenue Act of 1918, approved February 24, 1919, provides in part as follows:

"Section 1. That on or before July first of each year, every person who imports, manufactures, produces, or gives away opium or coca leaves, or any compound, manufacture, salt, derivative or preparation thereof shall register with the collector of internal revenue of the district, his name or style, place of business and place or places where such business is to be carried on, and pay the special taxes hereinafter provided; . . . physicians, dentists, veterinary surgeons, and other practitioners lawfully entitled to distribute, dispense, give away, or administer any of the aforesaid drugs to patients upon whom they, in the course of their professional practice are in attendance, shall pay \$3 per annum . . ."

Under this law for several years there has been levied on physicians and collected by the internal revenue department of the Federal Government, the special tax mentioned in the Act, amounting to \$3.00 yearly, taken from each practitioner "dispensing opium, etc."

This tax probably aggregates over \$200,000 annually. The registration of the physicians who submit to this exaction furnishes the government with a list of those who obey the law, and it is probable that the money wrung from them suffices to pay the salaries and wages of the horde of assistants to the collector, inspectors and clerks for whom places are thus found, and also furnishes sufficient additional funds to prosecute offenders.

The whole scheme is iniquitous and abominable, and physicians should submit to it no longer. This taxation does not benefit physicians. If it is for the benefit of the people, if it is to protect them from the dangers of drug addiction, let them all be taxed for it. We might as well tax garage keepers to secure funds for fire protection, or clergymen to secure funds, for police protection. If the public at large is to receive benefit, let the public be taxed, and let the general budget cover the needed amount, each citizen paying his little share. Legislation against a law-abiding class for the general weal is inequitable and vicious.

If the idea is to secure a separate and perhaps more accurate registration of the law-abiding physicians, and if the end can be reached only by a fee, let the fee be made half a dollar annually, and let the salaries be paid out of the general budget, and not be made a graft upon the doctor's pocket. Of course, the Directory of Physicians, published by the American Medical Association, can be purchased for a few dollars. What more is needed? But, of course, to use that volume

would not furnish the government positions for a host of place hunters and barnacles.

In the 67th Congress, House of Representatives Bill 14328 was introduced by the Hon. John Joseph Kindred, M. D., of the 2nd District of New York. This bill provided for a reduction of the \$3 special annual tax upon physicians, but was introduced too late in the session for a hearing before the Ways and Means Committee of the House, in whose committee it died.

Dr. Kindred will arrange for a hearing immediately after reintroducing his bill at the next session of Congress. It is confidently hoped that a representative body of physicians will be present at the expected hearing, to convince the committee of the iniquitous character of the tax. Why should it not be abolished? Memorialize your congressman early next December and secure the repeal of that part of the Harrison Narcotic Law that applies to physicians.—*New York State Journal of Medicine*, May, 1923.

A SIDELIGHT ON THE PROFESSION OF PROSTITUTION

Some few years ago in one of our large cities located in the Central West the chief of police remarked to the chairman of a woman's organization that his department would welcome any suggestions from her organization that would lead to the abolishment of prostitution in that city. Taking him at his word, she recommended that a list of all men visiting the so-called "red-light district" be kept in addition to the list the department already had of all women residing there, and that both lists be published in the morning papers. She assured him that such a measure would go very far towards accomplishing his purpose. He was shocked at the suggestion.

We are reminded of this incident on reading Dr. Estrid Hein's article, published elsewhere in this issue, in which she calls attention to the fact that, after all, prostitution is the problem of women; but she also puts her finger on the crux of the situation when she states that "if the chief market for human flesh is abolished the traffic will cease to be lucrative." When governments and states and cities will cease to make the sale of girls one of their sources of income, the business of prostitution will become a drug on the market. In the city referred to above, at the time of which we write, the revenue from the "red-light district" was used to pay the salary of the teachers in the public schools. We refrain from comment.

For centuries the prostitute, like the poor, we have considered a necessary evil. As one woman remarked to the writer on one occasion, "We have to have the prostitute in order to protect good women like you and me." When she was reminded that each soul who entered the profession of prostitution was perhaps some good woman's daughter, and was asked if she would care to sacrifice her daughter to protect some other good woman's daughter, she saw the matter in a different light.

We recommend to the consideration of our read-

ers Dr. Hein's conclusion that "it will be necessary to raise the morals, especially the morals of men, before lasting reform can be attained." Men have chastised women into chastity, largely for property reasons; let women chastise men into chastity for the good of their souls and for the ultimate good of posterity.—*Medical Woman's Journal*.

PRINCIPLES VERSUS METHODS IN HEALTH WORK

Those who study seriously the lines of development in public health cannot ignore the fact that much of the publicity focuses the attention of the public upon *methods* primarily and utilizes *principles* as talking points in support of the methods—good and bad. This is particularly true in the extensive field of better health for children. Of course, every person realizes the magnitude of this problem, and every right-minded person is whole-heartedly in favor of doing everything possible that is practicable toward improving the health not only of children, but of all other people. In so-called scientific literature, and particularly in more general literature, we are deluged with a great variety of different *methods* of improving child welfare, each one of which is considered to be fundamentally essential by its proponents. They usually do not say very much about the method; they simply announce it as an axiom and turn on the sob-story as an explanation of what will happen to the children if their particular pet method is not followed.

There was a time when the medical profession, in its duties in preventing and treating disease, was considered the most important factor in designating methods for the improvement of health. Today the tendency is to get further and further away from the physician, apparently because he is considered to be inadequately educated, too conservative and too selfish to permit his opinion to be of particular value in these movements. It is impossible to examine the literature of the subject at all critically without seeing very strong moving tendencies to break up public health betterment into several heads, in none of which is included the medical profession except in an incidental manner.

An examination of a recent volume on social welfare, published by the American Academy of Political Sciences, shows the tendency of one strong non-medical public health group and its earnest desire for leadership in this movement. In this book, containing some fifty or more articles by various types of "experts" in social welfare work, there are only a very few articles by doctors of medicine. The importance and responsibility of physicians in medical welfare work is mentioned only casually in this entire volume and, in many of the instances, in language that reflects discreditably upon the medical profession. This group undoubtedly would like to have a national department of social welfare, of which the medical profession would be a subordinate bureau. The educational authorities of the country are moving substantially in the same direction. Educational departments every-

where, including California, are active in building up subordinate medical departments upon somewhat the same basis that insurance companies and other great corporations employ in directing their medical departments. These medical departments in schools are, of course, under the control of non-medical educators. An indication of the tendency in our own state is shown in an article by Walter M. Dickie, executive officer of the State Department of Health, published in the Weekly Bulletin of the California State Board of Health, January 27.

"The schools have provided a remarkable field for this public-health type of work, and boards of education throughout the state are not only starting new machinery for promoting the health of the school children, but they are also expanding and elaborating upon machinery that is already provided." . . .

"Nutritional problems, routine physical examinations, the teaching of personal hygiene, and similar factors, are strictly speaking, within the province of the local educational authorities. The control of the communicable diseases, however, is absolutely and entirely within the province of health departments."

Another group that was particularly ambitious to control the public health field of this country, and incidentally to control physicians as subordinates of lay people in the public health field, is represented by organizations like the Red Cross and others of similar character. As an agency of war, for which it was designed, the Red Cross did serve, and undoubtedly would again serve, a valuable purpose, but if there is any place for it in our country in the every-day field of public health work during peace times, that fact constitutes a serious reflection upon the agencies charged by law with these duties.

The official health agencies as represented by national, state and local boards of health also are concerned in the development of a national public health department headed by physicians and operated by physicians. If such a department is to be created it should recognize public health as part of medicine, and the leaders and officers of the service should have a medical education. Many of the leaders of public health organizations appreciate this fact and are using every legitimate means to promote better public health by having public health bodies conducted by educated physicians. A considerable element among public health officials, however, apparently have felt that they were not strong enough to maintain control of their own field and they have formed various combinations with other non-medical, so-called health agencies, under one name or another, in the hope that by making such combinations they would win their point, even though they themselves thereby would take subordinate positions in the health work. These various combinations are changing ones—sometimes they are on, sometimes they are off. Recently a serious attempt was made to bring two of the largest of these elements together, believing that thereby they could establish at Washington a socio-political department to control the entire field of public health and medical

welfare in this country. Fortunately for the people of the United States, the plan fell through—at least temporarily.

Broadly speaking, there are five major forces whose function includes public health that converge at Washington in a national way and in every state, county and city in a smaller way. Some of these forces are so inclusive in their progress that the outriders and those toward the edges of the different forces get so mixed up that they have succeeded in spoiling a unified formation and impending progress of any of them—at least temporarily. These forces are (1) organized education with all of its various contacts; (2) the official health agencies and medical departments of government; (3) the medical department of the Veterans' Bureau; (4) the welfare and social service group; and (5) the medical profession, including those engaged in preventing and in treating disease. A great many people, including some legislators, administrators and politicians, profess to believe that these great forces can be harmonized and brought together and made to function as one great service under a Cabinet officer. Many attempts have been made, and some are now being made, to bring this about, and it is not at all unlikely that a law to this effect may be passed during the next few years.—*California State Journal of Medicine*, Nov., 1923.

A CRISIS IN THE PANEL SERVICE IN ENGLAND

The London correspondent of *The Journal of the American Medical Association*, in his letter of October 8, 1923, describes the situation that has developed in the panel service in England as the result of the proposal by the minister of health to reduce the "capitation fee." This fee before the war was about \$1.75, but after the war was raised to \$2.75, of which amount \$0.50 was provided for by special grant of the government. The government has now refused to continue this grant and offers the panel physicians a capitation fee of \$2 for an agreement of three years, or \$1.64 for an agreement of five years.

For some time there has waged a controversy, in the press and elsewhere, between the "friendly societies," claiming that panel physicians are paid too much and render indifferent service, and the representatives of these physicians, who allege that the pay received is insufficient. The minister of health agrees that the rewards of medical practice should be considerable enough to attract the right type of recruit to the profession and that the income to be derived from insurance practice should compare favorably with that to be secured from private practice of a comparable kind. He considers, however, that there is an advantage in having a sure income and in being relieved of the risk of bad debts and the annoyance and expense of collections, such as the private practitioner has to deal with. The capitation fee was reduced by 36 cents two years ago, but, according to the statement attributed to the minister of health, there was a net increase in the number of panel physicians by 552 between January, 1922, and July, 1923. An investigation was

made into the practices of 446 panel physicians known to keep careful records and it was found that the average number of attendance in 1922 was slightly more than 3.5 for each insured person, the office attendance being estimated as double the number of home visits. Experienced physicians, says the minister of health, have estimated that on that basis attendance could be given by each physicians to 2,000 insured persons and to an equal number of private patients.

It is predicted that the physicians will refuse the terms offered by the government, whereby they would receive a capitation fee of \$2, while the "friendly societies" will insist that the panel physicians should not be paid more than the prewar fee of \$1.75.

The National Medical Union, an organization of physicians much smaller than the British Medical Association, are entirely opposed to the panel and its members do not practice under that service. They insist on freedom for the medical profession in their relations to the public and for equal freedom for the public, and for the provision by the government of medical service for needy persons and for none else.

In spite of the fact that the number of panel physicians increased in 1922 and 1923, it seems that government control of medical service does not work smoothly in England. It is to be wondered if it will in any other country. Certainly it is not for these United States!

THE CONVERSION OF AN ANTIVIVISECTIONIST

Myrven D. Pannebaker, treasurer of the Pueblo branch of the American Medical Liberty League, was a man of his convictions, a staunch antivivisectionist and antivaccinationist. A year ago he was making speeches in support of the troubled antivivisection bill, and was publishing advertisements appearing to sundry and all to save Colorado by voting "Yes on Number 5."

As an antivaccinationist he ran afoul of the postal authorities, when over-zealous members of his league pasted "Refuse and Resist" stickers on rural mail boxes. In defense he explained that this was done "strictly with the idea of disseminating the truth among the people that it was their right under the constitution to defend their bodies from assault, and their blood stream from pollution by a clique of conceited and intolerant medical bigots known as the American Medical Association." His antivaccination fight was "strictly for blood and no soft pedaling," and included a mandamus suit in the District court to compel the North Side School of Pueblo to admit his children to classes without vaccination. He made the proud boast "I am in the fight for medical liberty to the finish, and will force the enemy out of his last trench, and fifty feet beyond."

He disclaimed the germ theory, and when his family were quarantined for diphtheria a year ago he called "no doctor of any kind," but applied "massages to the neck with a favorite application of ours."

He was fighting a hard fight, but fighting it consistently.

In the Rocky Mountain News of September 22, 1923,

there appeared a notice smaller than a want-ad:

PANNEBAKER—Myrven D. Pannebaker, aged 52, late of Pueblo, Colo., beloved husband of Mrs. Jessie Pannebaker. Remains will be forwarded to Pueblo, Colo., today for interment.

On the death certificate the word "diphtheria" confutes his work and his league.

Poor Pannebaker!—*Colorado Medicine*.

TREATMENT OF LEUCORRHEA

Shanks, in the *American Physician* for February, 1923, states that the remedies offered for leucorrhoea are many. Chapelle, of Paris, claims good results from the use of yeast in treating leucorrhoea, which a number of physicians have also observed. He advises the use of yeast in a pure, disiccated form which may be incorporated in cocoa butter and made into suppositories, and placed in good position on going to bed, or it can be made into a mixture by mixing it with glycerite of starch and retained with an absorbent cotton tampon, or again treated by dipping a sponge of cotton in a paste composed of water and yeast. This method of treatment is absolutely harmless, as it is perfectly safe to introduce from one to two teaspoonfuls or more of the paste and retain it in the vagina during the night. The sitz-bath is often beneficial in cases due to slight pelvic congestion. It should be taken before bedtime and continued for about twenty minutes.

The vaginal douche is used for various purposes. The douche should be taken at a temperature of about 115 degrees F., copious, about four quarts of warm water used. The flow should continue for about fifteen or twenty minutes, the patient being in the recumbent position, with the buttocks slightly elevated. The most important medicines to use in douches are potassium permanganate 1:8000, iodine, bichloide of mercury 1:3000, phenol 2 per cent, protargol 2 per cent, argyrol 5 per cent, etc. Astringent douches are employed where the secretions are excessive. The best drugs are alum, zinc sulphate, plumbic acetate, etc. Antiseptic intra-uterine douches may have to be used for certain conditions, in which case they should be introduced through a return-flow catheter and should be administered by the physician only. The intra-uterine catheter should be carefully sterilized by boiling, and should be carefully introduced after a proper speculum has been inserted in the vagina, and the cervix retained in position by volsellum forceps. The vaginal canal should have been previously cleansed and washed out, and the cervix cleansed by sponges of cotton saturated in some antiseptic. Tampons of ichthyol, mercury, boroglycerin and hydrastis are of great value in treating leucorrhoea. He has had great success in using an antiseptic cone, consisting of quinine bisulphate, zinc sulphate, and boric acid. This cone is made up in the shape and in the form of a suppository. Constitutional and internal treatment should consist of attention to personal hygiene and life in the open air, cod-liver oil (if patient is under weight), syrup of iodide of iron, Fowler's solution, etc.

COMMON VAGINAL DISCHARGES

Dr. James E. King (*N. Y. St. Jl. Med.*, April, 1923) emphasizes that a vaginal discharge (leaving out of consideration discharges resulting from the grosser pelvic pathology, such as cancer and fibroid) is to be regarded as a symptom only, and one which results from some underlying pathology of the endometrium of the body of the uterus, the cervical canal, or the vaginal walls.

The gonococcus is as a rule the cause of the vaginal discharge in infants and children, though a simple vulvitis may result from uncleanliness or from a general infection.

The basic principle in the treatment of such cases is cleanliness and the frequent use of the albuminoid silver preparations. Every two hours a thorough cleansing douche through a small rubber catheter should be given, followed by the injection of the silver. As the gonococcus disappears from the discharge, a mild astringent douche may be substituted. Zinc chloride, in strength of 20 grains to the quart, meets all the indications at this stage.

A type of leucorrhoea frequently met consists of a thick, tenacious, clear mucus. This type may be found in virgins, the nulliparous, or parous. The patient complains of constant moisture at the vulva, which, upon investigation, she finds to be a clear, thick, glary mucus.

Examination with a spectrum discloses a puddle of tenacious mucus in the vaginal vault, and a stream of it issuing from the cervix. In women who have borne children, if infections can be excluded, this type of leucorrhoea will almost invariably be associated with some pelvic condition such as retrodisplacement, subinvolution, lacerated cervix, or prolapsed ovaries, with varicocele of the broad ligaments.

Treatment should comprise local and general measures. Repair or amputation of lacerated cervix, correction of a displacement by pessary or surgery, may be the first step necessary. An engorged cervix or a subinvolved uterus may be depleted by appropriate tampons and prolonged hot douches. A mild astringent douche may be of direct value by correcting any associated vaginal condition that may contribute its part to the discharge.

Another type of discharge consists of a thin, yellowish, purulent fluid, usually very profuse and frequently having a peculiarly offensive odor. It causes much burning and itching of the vulva. A drying antiseptic powder liberally used, with a tampon inserted to keep the vaginal surfaces from contact, and, in addition, an antiseptic and mildly astringent douche once or twice daily after the tampon is removed, will give the best results.

A type closely related in symptomatology to the latter is seen in women during and after the menopause.

Keeping the parts as dry as possible will relieve the symptoms and cure the pathology. It must be borne in mind, however, that in the nature of things, recurrence is frequent, and these women should be instructed upon the first reappearance of symptoms to return for treatment.

Correspondence

WANTED: CHRISTIAN SCIENCE DATA

Chicago, Ill.

I am preparing a contribution, in book form, to a showing on Christian Science, dealing with the subject from the medical point of view.

Every physician has knowledge of cases wherein favorable results could reasonably have been expected to follow the timely use of proper medical or surgical treatment, but which, through reliance on Christian Science, resulted in serious injury to the patient.

The "story" of such cases, told by representative physicians in language that will be fully understood by lay readers, will appear in the forthcoming volume.

I shall be under great obligation to any members of the medical profession who will favor me with assistance in the matter.

There will be no undesirable publicity, as no names will be published. Your communication, doctor, will be held strictly confidential.

With appreciation of the favor I am asking,

I am cordially yours,

CHAS. E. HUMISTON, M. D.

449 N. Central Ave.

PARATHYROID TRANSPLANTATION IN INFANTILE TETANY

The author advises against this as a therapeutic procedure, having practiced it in infantile tetany in conformity to the practice successfully followed in postoperative tetany. In four cases he transplanted parathyroids from normal persons into children affected with tetany, obtaining in only one case of mild tetany a cure not certainly due to the glandular transplantation. Of the other three, two showed no improvement, even some increase of symptoms, and the third was seized with eclampsia after the operation and died in convulsion.—Lange (*Monatsschrift für Kinderheilkunde*, July, 1920).

SUPRARENAL INSUFFICIENCY IN THE NEWBORN

A lusty newborn infant of nine and a half pounds on the second day became cyanosed and dyspneic with cardiac arrhythmia and flaccid muscles. Adrenalin, at first one-fourth of a milligram subcutaneously, then one drop every two hours by mouth, brought a return to the normal in eight days.

A two months old girl with a suspicion of hereditary syphilis was similarly affected on stoppage of breast feeding. The condition lasted a month and disappeared in five or six days on adrenalin.—A. A. Aballi (*Cronica Médicoquirurgica de la Habana*, 1922, 48:151).

SUBSCRIBERS TO THE LAY EDUCATIONAL FUND OF THE ILLINOIS STATE MEDICAL SOCIETY CORRECTED TO DATE.

Below is a list of subscribers from down state and Chicago to the Lay Educational Fund as per letter sent members soliciting fund and cooperation. The list has been carefully checked to make sure of accuracy. If an error has crept in kindly note same and forward to the committee:

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Paul Allyn	Waverly
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G. S. Betts.....	Canton
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Nathan Bulkley	Evanston	C. E. Colwell.....	Aurora
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 W. S. Haines
 Charles Hill
 J. E. Irish
 Ludwig Ilse
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 J. Ireland
 H. Isaacs
 F. C. Jacobs
 Edmund Jacobson
 J. A. Johnston
 Aug. Jacobson
 L. B. Joslyn
 Warren Johnson
 R. A. Jeths
 Frank J. Jirka
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 O. F. Jens
 A. R. Johnstone
 Herbert L. Jordan
 Thomas N. Kelly
 Elmer E. Kenyon
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 J. F. Konapa
 M. J. Kearsley
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 J. L. Knapp
 T. J. Kaster
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 Gerard N. Krost
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 A. Krueger
 A. C. King
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 E. C. Morton
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 S. B. MacLeod
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 Geo. H. Musselman
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 A. J. Ochsner
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 H. G. Ohls
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 W. S. Orth
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 M. Penchina
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 F. M. Phifer
 Brown Pusey
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 Anthony Rud
 J. E. Rowan
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 Nils Remmen
 Sol Rosenblatt
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 O. T. Roberg
 E. Ries
 R. A. Rutz
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 C. F. Sawyer
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 I. F. Stein
 Chas. Segal
 Otto L. Schmidt
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 Sylvia A. Sclarretta
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 Joseph Semerak
 Vesper Shaffer
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 Carl G. Swenson
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 Grant W. Sill
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 John J. Stoll
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 Carl F. Steinhoff
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 L. Ernest Schwarz
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 A. E. Stewart
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 T. G. Wallin
 Geo. W. Webster
 A. A. Whamond
 H. Woelck
 E. Weber
 C. J. Whalen
 K. N. Wakeberg
 F. F. Wisniewski
 T. M. Wiersen
 T. J. Williams
 H. J. Way
 J. C. Williams
 F. G. Whamond
 P. Wiegner
 C. F. Yerger
 A. Yuska
 T. Z. Xelowski
 H. Zaczeck
 O. Zelezny
 Lucius H. Zeuch

The proposed campaign cannot be prosecuted without funds; it must be supported by popular subscription. It is hoped that every doctor will subscribe to this worthy cause. Serious disease diverted from the incompetent will result in the saving of thousands of lives and will prevent much permanent invalidism.

This campaign will achieve two great objectives: A gradual, but ultimate restoration of the medical profession to its merited place in the public sympathy and confidence and the inestimable benefits to humanity through the consequent prevention of disease and the preservation of life.

For the convenience of those who have mislaid their letter of Appeal from the State Society, we hereby reproduce the pledge card:

Please sign and mail to the Illinois State Medical Society.

To the Officers of the Illinois State Medical Society and Members of the Council:

"I am in accord with the proposed newspaper educational campaign in the press of Illinois, unanimously adopted by the House of Delegates of the State Society at the 1922 meeting of the plan recommended by the Council of the Society, and as evidence of my desire to co-operate with the Officers of the Council and of the State Society, I hereby enclose my check for \$..... to aid in defraying the expenses thereof:

Make Checks Payable to the Illinois State Medical Society.

Name.....M. D.

Street

City..... County.....

"Sign the above pledge card, make out a check payable to the Illinois State Medical Society and mail both in an envelope as follows:

From

ILLINOIS STATE MEDICAL SOCIETY,

c/o Cashier, Broadway National Bank,
6371 Broadway, Chicago, Ill.

Lay Publicity Committee, 25 E. Washington St.

ON THE LIPOIDS IN THE HUMAN OVARY AND THEIR SIGNIFICANCE

In the development of the follicle into the corpus luteum of menstruation, the corpus luteum of pregnancy, and in its retrogression into an atretic body, a change takes place in the kind and amount of the lipid content of its cells. So long as these cells are capable of functioning, nitrogenous and phosphoric lipoids predominate at the outset and later doubly refractive substances, especially a compound of cholesterolin and cephalin: when the cells begin to deteriorate or to display an inclination to deteriorate, neutral fats develop and increase steadily in amount. Finally fatty acids and soaps are found, while the complex lipoids disappear. These complex lipoids are to be regarded as the primary cell constituents, the neutral fats, fatty acids and soaps as the visible evidences of degeneration. Only the more complex lipoids (phosphatide, cerebroside, cholesterolin and their compounds), which appear at the outset of luteal hemorrhage apart from pregnancy and during the early stages of pregnancy, generate an internal secretory product of the lutein cells, and they appear only during a brief period of the life history of the lutein cell and then disappear. These lipoids can be identified with the experimentally active ovarian lipoids discovered and demonstrated by B. Hermann. The lipoids in the structure of the so-called ovarian interstitial cells are chiefly products of degeneration. Of the actual substances constituting the lipoids of the luteal cell theca nothing is known.—von Mikuliez-Radecki (*Klinische Wochenschrift*, July 1, 1922).

THE EFFECT OF LUMBAR PUNCTURE IN DIABETES INSIPIDUS, DIABETES MELLITUS AND GLYCOSURIA

The frequently repeated observation of lumbar puncture reducing polyuria in diabetes insipidus was confirmed in a sixty-five year old patient with an impaired aorta, beginning tabes and a polyuria of from four and a half to five and a half litres. The quantity of urine fell for six days to two litres, then rose again for three days to four litres. In two cases of diabetes mellitus the withdrawal of a few cubic centimetres of cerebrospinal fluid reduced greatly both the amount of urine and the excretion of sugar. In one instance the urine dropped from five litres to less than three, the sugar content from thirty-seven grams per litre to less than one, while elimination of salt rose from four and a half grams per litre to seven. In the other patient the urine fell from two and a half litres to one, the sugar from twenty-eight and a half grams to three-quarters of a gram per litre.—J. Lhermitte (*Gazette des Hôpitaux Civils et Militaires*, 1922, 95: 325).

THE TREATMENT OF ENDOCRINE OBESITY

The author does not agree with von Noorden that all cases of endocrine obesity are a manifestation of thyroid disorder. He implicates frequently the pituitary and genital glands and occasionally the adrenals, the pancreas, and the pineal gland. Even though endocrine influence be the principal factor in any instance, success may not be looked for in treatment unless the diet be carefully regulated according to the indications.

To this must be added stimulation of combustion and of metabolic processes in general, an aim to be accomplished only through organotherapy. Yet only in cases of abnormally low metabolic index, the thyroid and genital forms, can success be attained by increasing oxidation. In dystrophia adiposogenitalis and in localized lipomatoses, in which latter no glandular abnormality exists, endocrine preparations have little effect on the adiposity. In the author's experience far the most useful extract, where thyroid is indicated, is thyroïdin in amounts of from three to nine grains a day continued till quickened pulse and heartbeat, abundant perspiration and general nervousness give warning of full effectiveness. In adipose conditions not of thyroid origin ovarian and pituitary preparations are to be employed, but they quicken metabolism to a less degree than thyroid extracts. Often a combination of thyroid, ovarian and pituitary may be found effective to that end.—H. Zondek (*Klinische Wochenschrift*, May 13, 1922).

THE EXCEPTIONS

"Do cucumbers distress all people, doctor?" "No, madam; only those who eat them."—Boston Transcript.

Original Articles

MATERNAL AND INFANT WELFARE WITHOUT GOVERNMENT BUREAUCRACY

WM. D. CHAPMAN, M.D.

SILVIS, ILLINOIS.

The two subjects linked in the title which I have been asked to discuss are so widely separated that it has been difficult to consider them jointly. A search has failed to reveal any factor common to individual health and normal functions of government. The function of government is the exercise of those powers and the fulfillment of those duties which protect citizens in their property and family rights and in peaceful pursuits, and also to provide a business office for the transaction of international affairs.

The protection of citizens in their right to their own involves the exercise of police power for the restraint of public offenders and under this head has come to be classed the temporary curtailment of certain activities in the emergency of contagious disease. This right of quarantine for the public protection is admitted to be just and necessary but is so only through the duration of the emergency. The necessary exercise of police power is recognized as an emergency right and is held in sharp contra-distinction to the necessary conservatism of normal living, with its great tolerance of harmless foible and individual opinion.

Tolerance of all which affects the individual alone is the essence of good government. Intolerance, either religious, moral, political or social, is the rock on which lies the wreck of many fallen governments. To any who would claim that individual health is a national right I make flat denial and refer to the government of Sparta, which fell. Pressed by a great need, the government of Sparta usurped the right to make men and that state made men of super quality, with a ruthless efficiency which makes the present day Russian system credited to Madame Kollantai seem puerile. The denial of the family as the unit of government wrecked Sparta and furnished warning par excellence for all who would invade the sanctity of family practice with breeder's manuals and police compulsion.

The Constitution of the government under which we prosper was conceived in tolerance and protects the people of the United States against bureaucratic centralization of power save only through the subsidy of State Legislatures.

Such a subsidy has been attempted in recent years in numerous lines of endeavor.

The fallacy of Federal Aid plans involving the distribution of cash to the several states in exchange for patronage and weakened sovereignty, lies in the assumption that cash money is an inherent possession of government. The assumption is in error and the monies of the National Treasury do come from the surplus funds of individual citizens after paying their own current expenses for food, shelter, health maintenance, and recreation. That any part of these individual surplus funds, achieved in thrift, should be appropriated to the personal expenses of other individuals, not legitimate paupers, is out of equity. Also, it is extra-governmental unless it be conceded that the individual person is government property. Such a concession is denied in theory and in fact by our particular government.

Maternal welfare and infant welfare, then, rest as private incidents of family life now and for the future and demand consideration and handling by those whom normal duty nominates; husbands, wives, parents and the health advisors of their choice; rather than by volunteer fixers who offer advice to the point of proposed compulsion without constructive effort in the raising of families and with only theoretical as against practical knowledge and with only vaporous generalized advice as against concrete demand and detailed experience.

The medical profession of America has the record of the health experience of the world for some twenty-three hundred years. To spread this record for the instruction and guidance of those in need is its privilege and duty. To those who feel their own competence to procure and interpret that record and to work through without expert advice, the members of the profession should extend charitable humor and nothing different. From incompetent advice vociferously offered by charlatans or demagogues or uplifters-for-pay or their dupes, the profession which knows history and is expert should protect those who look to its members for advice.

Maternal and infant welfare collectively, is the sum total of that welfare individually.

Individually, it is a matter of judicious management by one best qualified to advise, chosen from among those available.

It is generally admitted that the members of the medical profession are best qualified to advise and our various groups of social-thinkers admit and claim that they can accomplish nothing without the aid of the medical profession. And so, to that profession again accrues a responsibility to which it has long been accustomed, but with this difference; a comprehensive examination of a large class of citizens of military age about 1918 revealed to the public gaze physical defects long deplored and a source of concern to medical men; many of these defects were congenital and lent color to a claim in no-wise new that the medical profession was failing in its pre-natal and post-natal care of infants. An alternative dictum that the sins of the fathers shall be visited on the sons was uneasy to believe and difficult to explain and generally unwelcome.

A post-war hysteria lent ready sentiment and ready money to the clamor of unlifters-for-pay who draw their salaries from the open pocket-books of altruistic people.

A group of bolshevists persistently patient in their efforts to abolish democracy in this country through the medium of wrecking our dual form of government and substituting an unbearable centralized bureaucracy, seized a moment of hysteria and a subject of sentiment for their greatest effort at establishing precedent, and furnished the political acumen necessary for the passage of a Federal Maternity Act whose only function is to subsidize state Legislatures and confirm a bad precedent.

These three circumstances operating jointly have evolved a situation in which a befuddled public, realizing its helplessness, is now turning to a bewildered profession groping for its accustomed authority, with a demand for the magic panacea which will relieve all ills. A profession sick with lay boards of control and lay educational foundations and lay legislation and a lost sense of proportion in its handling of patients is ill-conditioned to answer until both shall have purged themselves of erroneous ideas as to capabilities and limitations.

It has seemed to me that the key to the answer lies in a statement that no social-thinker,

no group-worker, no idealist, no optimist has yet evolved a magic scheme whereby Maternal and Infant wellbeing can be evoked for all and sundry, the fit and the unfit, by the idiotic expedient of making a law.

Omitting for the moment a discussion of heredity and environment, maternal and infant welfare depend upon two things; the practice of general hygiene and the practice of medicine. Each of those things is an individual practice contingent upon the willingness, the judgment, and the ability of patient and practitioner.

For the patient, otherwise known as the public, neither intelligence nor willingness nor understanding, is to be achieved by bureaucratic order nor government edict. Her receptivity is fixed by the past experiences of herself and her forbears. For the practitioner, neither understanding nor judgment nor ability is to be had in that manner.

Willingness to accept care, and understanding co-operation by the patient are to be had in one way and, I believe, in one way only.

That is by permitting her to feel confidence in the good faith, the judgment, the human understanding and the technical ability of him who would advise.

There is a characteristic of public and private living so pronounced that it may be postulated thus:

Where confidence is deserved confidence will be reposed.

And in this manner we are led to introspection.

Obstetrical practice will continue to be chiefly done in the home and the small hospital. The results obtained and the confidence deserved will continue to depend chiefly upon the individual attributes, technical and ethical, of private practitioners. Granting that the medical profession of other generations has received full measure of the confidence of its public, practitioners of the present generation are entitled to no single rose from the bouquets of our deserving fathers. Either we earn and receive confidence or we neglect and do not receive. Associated Press dispatches of October 19 carried an announcement that the Panel Doctors Union of England had threatened to strike if further reductions were made in the wages of its members. No more repulsive comment can be made on the decline and fall of an honored profession. Are we in America business men whose business may

at any moment be taken over and run by more astute business men? Are we craftsmen whose wages may be fixed by the economic conceptions of insurance companies or lay Bureaus? Or, are we devotees of a profession above and apart from business and wages? Plainly, we are a combination of all three.

And insofar as the first two dominate the third in the lives and work of individual practitioners, by just so much will the confidence of women in maternity like that of all other patients be withheld or withdrawn and by so much will maternal and infant welfare suffer.

With the waning of the hysteria which we have seen, the public has now turned to the doctor with two questions: "What was it about?" and "What shall we do now?" And upon our answer depends the future trend of popular opinion and action. To inspire confidence our answer must ring true and introspection must be frank for no amount of public proclaiming will ever make us appear other than as we are.

More responsible than all else for the situation which confronts us seems to have been the unassimilably rapid succession of minor modern scientific discoveries.

In the practice of medicine science and art are strangely commingled and the rapid rate of progress with its effort at understanding new truths has riveted the attention of the profession much to the detriment of the art of practice. This laudable endeavor to understand and keep pace has resulted in the grievous error of unseating practitioners of medicine from the teaching staffs of medical colleges to make place for scientific investigators and technical instructors much of whose work would better have been kept beyond the sight of novices in training for the art of practice. This error could never have been made by the profession alone but was made possible by lay foundation contributions which in return demanded lay domination as a right. Being dominated, the medical profession has cringed and surrendered its independence of thought and action.

A sentimental rather than practical public has shaped courses for a well meaning profession to the point where one of the hardest lessons for army surgeons from civilian life to learn was that the care of the incapacitated was a minor incident, entirely beside the normal function of an army. And so in normal civil

life we are coming to forget that general utility rather than scientific exactness of function is the end and aim of living.

This is not as it should be and has resulted in overhospitalization at exorbitant expense and in specialization by men without general understanding and by excesses in the field of group practice, all for the sake of the over-use of instruments of precision as against the laborious training and use of the five special senses.

The public resents this occurrence and fails to understand how it came about and wants and will have a general practitioner who in public, stresses the homely art of relief above his own technical studies. If the profession will not educate such a practitioner the public will take what it deems to be the most available cult and build one by toning up his education a bit, reserving the call upon scientific exactness for emergency use only. They will do this in the name of general utility and they will be right.

In the field of maternal and infant welfare this evolution would possibly start with the midwife or the trained nurse as the active agent and would be costly indeed in health and well-being but after many tribulations it would be accomplished. It is our duty to save this cost and our technic must be to deserve confidence rather than to merely claim it.

For instance: We have neglected the puerperium and our public resents that.

Proper conduct through that period does not depend upon diagnostic instruments of precision or upon handsome office equipment or upon recent discoveries, but does depend upon two of the special senses and judgment and what I have chosen to call human understanding. An Albert Smith retroversion pessary, re-shaped and fitted, will alone, many times remedy sub-involution and will give comfort through a protracted convalescence. We have failed to use it rightly because somebody has said that the age of the pessary was yesterday and has failed to offer an adequate substitute. The same instrument with its homely technic of application will very many times indeed give perfect relief, in some empirical fashion, for a troublesome vomiting in the early months of pregnancy; and we have too-largely ignored it because it was empirical. For the good of our patients it is well to cling to a limited amount of empiricism, remembering that quinine cured malaria just as efficiently be-

fore the discovery of the plasmodium as it ever has since, and that the rules of procedure promulgated by O. W. Holmes more than four years before the scientific reasoning of Semmelweis was announced, will efficiently protect today's patients against puerperal fever of exogenous origin.

The welfare of mothers and infants rests now as before, squarely upon the medical profession, and upon the honesty with which that trust is met depends much that is important in the future of both.

136 Ninth Street.

THE COUNCILOR, HIS DUTY TO THE STATE AND COUNTY SOCIETIES

C. S. NELSON, M.D.
SPRINGFIELD, ILL.

I have often wondered if the rank and file of the members of the Illinois State Medical Society, fully understand and appreciate the function of their Council. I confess I did not, until some time after I was first honored by being elected to represent the fifth district ten years ago. The Council of the State Medical Society, might be compared to the directors of a bank, or some large mercantile institution. The Illinois State Medical Society is getting to be a large institution, comprising some eight or nine thousand members, and in the interim between the annual meeting of their House of Delegates, it is self-evident that some body with necessary authority must represent them, to meet any emergency that may arise during this period. These emergencies usually mean financial or legislative. At the quarterly meetings of the Council, ten or twelve thousand dollars is usually disbursed. This large sum is required to meet the expenses of the publication of the *JOURNAL*, medico-legal expenses arising from malpractice suits, salaries of the secretary, editor, etc., but the Councilors only receive their actual expenses for attending these meetings. Two years ago, the House of Delegates voted to raise the dues for membership in the State Society, to five dollars a year. So far as I know, the members are satisfied with this assessment. But should there be any who think this is excessive, let me ask, where else in any business transaction, can you secure anything like the

value for your money? Out of this, you receive a monthly Medical Journal, which I think can hardly be duplicated for the whole amount paid. Aside from this, you receive medico-legal protection, which I believe is equal to any private corporation, which costs from \$15.00 to \$25.00 per year, and in addition to all this, you should receive the moral support of all the members of the society. I say "should" advisedly, for I believe that any member of the Illinois State Medical Society, who does not give his brother physician his moral support regardless of any personal feelings he might have, except in criminal proceedings, is a traitor to the society.

The Council is at all times subservient to the laws and rules as laid down by the house of delegates at the annual meetings, but should some matters be presented to the Council about which there is no precedent established by the house of delegates to guide them, and one or both of the contesting parties should be dissatisfied with the ruling of the Council, it is his or their privilege to appeal from the decision of the Council, to the house of delegates at the following meeting, and their verdict is supreme. Occasionally, however, the house of delegates in their haste or without due consideration, may pass some act or resolution, which the Council after full and mature deliberation may regard as injurious and inimical to the best interests of the medical profession, and in such a case, the Council gets busy with the delegates in their various districts by mail or otherwise, calling their attention to what we regard as a great mistake, and if agreeable to the various delegates, the act may be annulled. There is but one such case, however, that comes to my mind at the present time. A few years ago, the Director of Education and Registration made a speech before the house of delegates in Springfield, advocating a yearly registration of all physicians in Illinois. The great majority of the delegates seemed to be temporarily hypnotized by the eloquent plea of the Director, and a resolution was introduced and passed endorsing this annual registration. The Director, with this powerful weapon, expected to go before the legislature and have this enacted into law. The Council, after mature deliberation could plainly see the injustice of having this extra burden and taxation placed on the medical profession, and the Councilors immediately got in com-

*Read before Secretaries' Conference, Illinois State Medical Society, Decatur, May 15, 1923.

munication with the delegates in their respective districts, and had no difficulty in persuading them to change their votes, and the act was annulled. The Director did not have the bill introduced after this, as he evidently realized the futility of such an effort without the endorsement of the Illinois State Medical Society. One of the strongest arguments the Director made in his speech favoring this law, was the satisfactory (?) manner in which it operated in the dental profession, but at the next session of the legislature, the dental societies got busy and had the law revoked.

During my ten years in the Council, I think the past year we have been confronted with more and greater problems concerning the medical profession, than any of the former years. This probably is literally true, for it seems that each succeeding year becomes more productive of different cults trying to gain recognition; of certain leagues, clubs, etc., trying to dictate the policies and practices of the healing art, and it is one of the duties of the Council to guard the portals of the medical profession as well as they possibly can, against the invasion of such malicious and dangerous elements, not only to the medical profession, but the public as well. Bills like the Sheppard-Towner bill, State medicine, etc., the fruits of these perennial influences, backed usually by hired lobbyists, are some of the evils the Council have to combat.

The state of Illinois is practically without a medical practice act at the present time, the act of 1917 having been declared unconstitutional by the supreme court, so the Council have had to consider a new practice act, which has been presented to the present session of the legislature, and with which I presume most of you are familiar. For the framing of this bill I think the physicians of Illinois are particularly indebted to Dr. Humiston of Chicago and Dr. Neal of Springfield, chairman of the legislative committee. I do not overlook the fact that several are deserving of praise for the efforts they have exercised along these lines, but the two mentioned above I think are deserving of honorable mention. This bill I believe is as near a model bill as we could hope to get enacted into law, and whether we can even do this is problematical. The Council the past year has given this bill a great deal of consideration, and it is now up to the physicians of Illinois to render them all the

assistance they possibly can toward having this bill passed.

The Council the past year has had under consideration a somewhat novel feature known as a publicity bureau. This publicity bureau is a novelty, only so far as the medical profession is concerned, as it has been employed for some time by banks, mercantile institutions and also by the various cults. No doubt you gentlemen have all received letters soliciting funds of \$10.00 or more toward this publicity fund. I am inclined to think many did not thoroughly understand the object of this publicity fund, although the response has been very gratifying, as the report at the last meeting of the Council showed there was \$8,600.00 in this fund, but this amount is hardly adequate for the purpose.

The object of this bureau is for the purpose of disseminating knowledge through the lay press, as to what the medical profession has done, is doing and what they expect to do in the future for humanity. The articles will be censored by a committee before publication and will in no way be in the interest of any specialty, but for the medical profession in general. I can conceive of nothing which will redound to the interest of the medical profession like I think this publicity bureau will do. How many times have you read articles in the newspapers giving an account of some marvelous cures in which some cult has been given the credit? These articles are regarded by the laity as news items, when in fact they are censored and paid for by the publicity bureau of these cults. The medical profession will not have to resort to this, but suppose a news item should appear in the home papers about the injurious effects of bad tonsils; the history and beneficial effects of vaccination, or apprising the people how they can prevent diphtheria and typhoid fever, etc., don't you imagine it would bring a horde of patients to your office you would not otherwise get?

The caption of this paper, "The Council, their duty to the State and County Societies," was suggested to me, but I believe a better title would have been "The Council, the State and County Societies, their duties to each other." The work of the Council would be much easier and more effective many times in trying to solve problems of vital interest to the medical profession, if they would only receive the active and hearty support of the various county medical societies when they

are appealed to for assistance. This applies particularly in legislative matters, and in these matters the apathy of the medical profession is painfully noticeable. Let a bill come up before the legislature affecting the farmer, the miner, the merchant, etc., to say nothing about the railroads and other large corporations, the state house is swarming with people who are there to represent their particular interests. But how different when a bill is up affecting the medical profession. Aside from a few faithful workers who have devoted years in the interests of the medical profession, you could not muster a corporal's guard of physicians in the whole state house. Is it any reason, then, that these few faithful workers should receive as a response to their appeals which has been literally true: "To hell with the medical profession"? Representatives in the legislature well know that if they do not give what the majority of their constituents demand, they will be retired to private life, and the only guide they have as to what their constituents want is the clamor of the hordes of people representing their particular interests on the days when their bills are to be considered. Two years ago, when the infamous maternity bill was to come up for a hearing before the Judiciary committee, I wrote a letter to the secretary of every county society in my district apprising them of the dangers of this bill in as strong language as I could command and pleaded with them to solicit volunteers to come over on that date and assist us in fighting the bill. I never received even a reply to one of these letters. I did not construe this as an act of discourtesy on the part of the secretary towards me, but it only demonstrates the apathy that exists along these lines among the medical profession.

Nowhere is that old adage, "In union there is strength," more applicable than in legislative matters, and if the medical fraternity would only exert their strength we would soon have the members of the legislature coming to us, asking what we wanted, instead of us going to them, eager to grasp the crumbs that fall from the legislative table.

The physicians of this country have it in their power to build up the most powerful political organization in existence, and if this had been done a few years ago we would not have the Harrison law, to which we have to pay tribute yearly. We would not have the pernicious Sheppard-Towner

bill on the statute books. I never knew the members of my own county medical society to be any way near a unit on any political question until two years ago, when one of the big political organizations placed a Christian Scientist on the ticket for coroner, and as the result of the activity we exerted in that election, we showed we changed between two and three thousand votes. If this can be done in one county society, it can be done by a similar activity in every county in the state, and in every other state, and the effect it would have can be imagined.

This year there are bills before the legislature of vital interest to the medical fraternity, and it remains to be seen whether the physicians of this state by their apathy will let these matters go by default, or will you "storm the castle" the same as other trades and professions, demand our rights, and by so doing protect a misguided public?

A maternity bill, which is a bastard child of the Sheppard-Towner bill, is up again for consideration. Will you do your duty towards defeating this bill? A medical practice bill which has been prepared with great care by experts has been introduced to replace the one declared to be unconstitutional by the supreme court. Will you get behind this bill and help to push it through, thereby restoring the medical profession to that old-time dignity before the many different cults succeeded in wielding such an influence over a credulous and misguided public? Let us hope so.

DISCUSSION

DR. W. F. GRINSTEAD, Cairo: I have known for a great many years that Dr. Nelson is a professional patriot. This is renewed evidence to me of that fact. The older he grows the more patriotic he becomes. He doesn't seem to have any troubles of his own, but is always trying to remedy and relieve troubles of the public and particularly of his profession. I believe that he is entitled to a lot more credit than he has ever had evidence of, but I don't think he cares much for the credit—what he wants is results. Now, he has done a lot of work that he can't have any reward for except a little gratitude among the rest of us. He continues to do more and more work in the effort to put the medical profession on that high plane of scientific achievement in the healing art where it belongs, and I can readily imagine how disappointed he must feel when he writes letters to every county secretary in his district and doesn't get a single reply. It does look like ingratitude, and yet he is big, broad and generous enough to not blame anybody for this inattention and neglect of his efforts. Now, we all know

that when a Bill comes up before our Legislature that involves one of these cults they swarm in there as Dr. Nelson has stated, coming in great numbers; not only that, but they are not content at the subscription of the little \$10 that a good many of us have contributed to this fund which is expended to educate the public, to teach people what the medical profession is, what it has done for them, what it wants to do, but these cults will put down a hundred dollars apiece where we put down ten, and they use the influence of their personality to get there and look at these fellows, talk to them and make them feel they have a wonderful pull out in the country and that a man can scarcely get into office without their support. We stay at home and prescribe for our patients.

I am not wise enough to direct an experienced old leader like Dr. Nelson. I have one little disadvantage, I am as far south as anybody can go in the State of Illinois—I don't get these things hot from the bat, but I keep in touch with them all the time, and when I have an opportunity to lend a little help in any way I think would be worth while I am glad to do it. We need more men as sacrificing, industrious and patriotic as Doctor Nelson.

DR. L. J. HUGHES, Elgin: Would like to ask Doctor for a point of advice. Next Friday night we are going to have some 40 members of the House in Elgin for a little love feast. I wish the Doctor would give me a few talking points, some of the salient points along the Sheppard-Towner Bill.

DR. NELSON: I refer you to Dr. Neal, chairman of the legislative committee for your reply.

DR. JOHN R. NEAL, Springfield: I think that is a beautiful exemplification of passing the buck.

DR. S. L. SEIFERT, Logan County: I would like to say this in behalf of the secretaries, I don't know if it applies to all the same as it is to me. I have received many letters from Dr. Nelson in regard to legislation; I sit down and write each member of the society and I failed to have one reply. I don't know whether they obeyed my instructions or not.

I think there is a listlessness among them in general at this time.

DR. W. C. BLAIN, Douglas County: I am very much interested in the questions Dr. Nelson brought out. But the thing that interests me most is why we are unable to get our doctors interested in legislative matters more than we do. We have had several meetings in Douglas county, small as we are, 20 members, that really produced, or rather bore fruit, I think. I mention them here because I think they are the best getters of business we have, and that is getting the legislative members present at the doctors' meetings. Sometime during the year we have, if it is so we can have our wives and nurses and others interested in medical matters, at this meeting, and feed them a little and our senators and representatives like to be fed as well as the doctors, and we have found out that it has done more good in Douglas county. Maybe I shouldn't say so much, as I don't know whether Dr. Nelson has ever told me how some of our legislators have stood on some of the questions there are up, but we do know

they talked about matters we were interested in after we fed them. I have found this out. We have had them from our whole district, Coles and other counties, and doctors came and brought their wives, we have had two such meetings in the last year or year and a half, Dr. Neal was present at one of them, and we really did a lot of good in regard to our legislative members. I don't believe I could go to any of these members now and ask something they wouldn't grant. They would talk to me at least on the matter and tell me what influence there was on the other side and interest themselves more openly.

I do think if we get more of that in every county, or combination of counties, have the legislative members there and some of the newspaper men we will get a little publicity on medical matters, and it will do more good than anything else.

DR. J. S. TEMPLETON, Perry County: I think the trouble with this publicity fund is the fact that we are not well enough acquainted with it. I believe a great many others would contribute to that fund if they knew what it was for. I think it will be only a little time until physicians will respond faithfully to that publicity.

I was advised by someone I thought was in touch with the Legislature that the Senate Bill was probably the better one of the two, so I would like to hear from Dr. Neal in regard to this Bill. As secretary of the county society for several years, I know the men are interested after you get the information before them. We have less than 20 members who are paid-up members of our county society. Invite your members of the legislature to meet with you. In our senatorial district we have the pleasure of having each member of that senatorial district, senator and representatives, with us. It is only a matter of getting our men interested to get them to vote so it will benefit the society.

The Councilor and Secretary are closely connected and the secretary should pay close attention to what the Councilor writes him. We can't expect a man like Dr. Nelson to spend his time and energy and not give due notice to letters and information he gives us. Our profession will respond if we place the matter before them in the right way.

DR. W. H. DURKEE, Whiteside County: I would like to rehearse a little experience we had in our county just recently. The subject of the Medical Society meeting was Medical Economics. It might have been Medical Diplomacy, but we called it Medical Economics because we didn't want the public to know just exactly what we were talking about and still we wanted to reach some discussion that might influence the public. In speaking about the Cults, the question was discussed in this way—when we doctors get down to better business, when we do our work more systematically and with the idea of better results, the public will come back to us with renewed confidence and conditions will be better. Speaking about the publicity subscriptions, I would give a good deal to have a letter now which was written me by one of our members when I sent out circular letters requesting that subscription. The letter from a man who is loved in his community,

had done wonderful work, a man of 70 years old or older, practicing medicine, said, "Doctor, as long as the public turn the doctors down what is the use of spending money to educate them?" Some of us have the idea that it isn't any use to educate back where we used to be, and the general sentiment in Whiteside County is that when we get back to bed-rock, work out ourselves and do the things right we will have less use for such things that camouflage the public.

The question of dues came up in our county and when it was announced the state dues should be \$5 a lot of men went into the air. They said "that is too much." I have only had two years' experience as secretary, but I believe the whole thing is up to the secretary and his work. I went personally to every one of our members and told them the reason why we should have \$5 dues for the State Society and they could then easily see the reason and we swung the fellows into line. I suggested one day that our county dues should be raised, we couldn't possibly do business in Whiteside county on 50c a month; some of our men dropped out, but three weeks ago Sunday I made a trip through the county and swung all of our fellows into line and added four new members to our Society.

DR. B. A. SCALES, Decatur: I think one thing about this whole business is a matter of procrastination. If we don't hit the nail on the head the first time we are apt not to hit it at all. Four weeks ago I sent out a letter to the secretaries of the various societies, enclosing a return postal card, asking the number of members and the number that would probably attend the state meeting. I received answers from 45 to 50 of the secretaries. That means 50 to 60 of the secretaries did not answer the letter, although it was in the form of a return card. We wanted an idea, merely, of how many were going to be here. That was neglected simply because it was put on the desk and not attended to today or the next day, and forgotten.

I think with the Sheppard-Towner Bill the same thing is probably true, and with a lot of other matters. We received here and all the other county societies probably received a letter from the Chicago Heights Society, telling us of a resolution they had passed in regard to the Sheppard-Towner Bill. We passed practically the same resolution, and followed that up, sending copy to the senators and representatives from this district. About a week ago we got a letter from Dr. Wheeler in Chicago, that Senator Smith needed a little bucking up in this district on the Sheppard-Towner Bill. We called on him and he said he was perfectly all right on it. As medical men, we probably devote most of our attention to the practice of medicine, not watching legislative matters at all. We don't know what is going on. We may hear from Dr. Neal on this subject, maybe it is brought up before the society and maybe it isn't. As a general thing, I think it is just a matter of putting things off.

DR. W. D. CHAPMAN, Silvis: The attitude of the medical profession toward politics in general has been, I believe, pretty much the attitude of the public

in general and has been due quite largely to a failure to keep in mind the difference between politics and statesmanship. A good many of us get the idea that politics is a good thing to stay out of. I am convinced we can't stay out if we would and we would do better each of us to mix a little of either politics or statesmanship or both with other work. There is no greater influence on earth than a position at the bedside, and if we keep in mind to talk these things among our friends when we meet them, and especially to make friends of our representatives in the General Assembly, and as Dr. Blaine has described, meet with them several times during the year and feed them, fill them up, and show them on the street that we are cordially their friends, and then whenever there is opportunity these men will do something for us. That is the thing we have neglected to do. We have always asked favors and given nothing in return. We never advertise, we never turn money to a newspaper in any way, and still we have felt hurt that the newspapers did not grant us publicity. We should keep in mind that reciprocity is fair and is a recognized proceeding.

COMMON MYDRIATICS AND CYCLOPLEGICS

G. HENRY MUNDT, M.D.; F.A.C.S.

CHICAGO

On the surface the subject of mydriatics and cycloplegics seems a very elementary one, however when one considers the extent of their use in ophthalmology and their great importance he will probably have a different view point on this most important subject.

In this paper I make an effort to state clearly my own views and they are the result of thought and action over a number of years. For some years I have frequently questioned ophthalmologists regarding cycloplegics for refraction, and the lack of unanimity is to say the least amazing. I know of no non-operative subject in ophthalmology of so vast importance on which there is such a lack of unanimity. With other remedial agents that are to be compared in importance with cycloplegics and mydriatics. I think there is a well crystallized opinion; but when we consider these drugs opinions of their comparative value vary greatly.

This view point is well borne out by the great variation of the answers on a questionnaire which I sent out to a considerable number of American ophthalmologists. Also the great importance of mydriatics in the treatment of iritis and its varied complications is generally appreciated; but how do we proceed when a one per cent solution of atropine sulphate fails to dilate the

pupil? In propounding this question I fully appreciate that there are many other factors to consider in treating iritis, etc., but I limit this consideration to the local treatment of the eye. If eserine fails when outside factors have been eliminated, the indications are rather clearly defined, but not so with mydriatics.

One of the very important works of the ophthalmologist is refraction and a vast majority of competent men consider a cycloplegic one of the prime essentials of good refraction. But there is by no means so general a view regarding the particular one to employ and where even the same one is used the method of administration is so different that results must of necessity be different. This is well borne out by the answers regarding cycloplegics for refraction, the answers ranging from the use of a single disc of one fiftieth grain homatropine hydrobromide and one fiftieth grain cocaine hydrochloride and refracting in thirty minutes, to the use of atropine sulphate solution for four days before refraction, between these view points all gradations are to be found. In my questionnaire one ophthalmologist said, "Our reports of refraction cases are so variable because of the very different methods of administering cycloplegics."

I am firmly convinced that everything else being equal the more complete cycloplegia attained in refraction the nearer we approach ideal refraction.

I appreciate that the patient seeks relief from symptoms and hesitates to lose any more time than is absolutely necessary, but in the final analysis we, in our work, as every one else should approach as nearly as possible the ideal.

In answer to the question "have you any conviction regarding the value of hyoscin the answers given by two equally well known ophthalmologists are typical. One said "Yes it is dangerous. A number of years ago I nearly killed two people with it and have wanted nothing to do with it since," while the other said, "Yes, it is the most valuable drug in this group." I may say now that after an experience over at least ten years use, I thoroughly coincide with the latter view point. However, my early experience was identical with the former, being the result of the superficial reading of a paper by Reber, from which I gained the opinion that hyoscin hydrobromid and atropin sulphate could be used interchangeably and in like manner. But

when I was called to see a child who had had a single drop of a one half per cent solution of hyoscin hydrobromid in each eye, and about fifteen minutes later started to try to climb the wall, etc., I decided that I was dealing with no pet but a strong active agent to be used, if at all, with great caution, and I then coined the statement which I have never had a reason to change that "hyoscin has the kick of a mule."

As a matter of clarity I want to state that in this paper I consider the isomeric substance hyoscin hydrobromid and scopolamin hydrobromid identical since Merk labels them so, also this is a practical settlement on their difference which has been extensively discussed. Also I am unable to state whether I use the left or right turning or the nondiverting substance.

In refraction I think there is a general appreciation of the great value of a cycloplegic. However, there are a few who are of the opinion that a cycloplegic is not alone not necessary but undesirable. My opinion of this view can well be expressed by saying that I am a near convert to the view of a friend of mine, who when a refraction case comes to his office who has previously been refracted by a certain man who abhors the use of a cycloplegic, because he says it produces an unnatural state, writes on his history card "previously refracted by Dr. X, therefore wrong."

Again referring to my questionnaire, all gradations of opinion are found regarding the use of cycloplegics or mydriatics in refraction; ranging from the use of nearly none, to the statement by one well known man that he does no refractions at any age without the use of a mydriatic. I am thoroughly convinced that in refraction every patient under forty years of age should have a cycloplegic, that nearly all those between forty and fifty should, excepting practically none but those who have normal vision and apparently need no distance lenses, or in other words, I think excepting only those presbyopes who need reading lenses and have no symptoms other than poor vision for close work, practically all patients under fifty years of age should be refracted with a cycloplegic. Especially am I of the opinion that in myopia it is as essential to use a mydriatic as in any other class of case. I cannot subscribe to the view that hypermetropia is the indication for refraction with a cycloplegic. If one is to determine with accuracy the total error of any patient the one right method is to use a cycloplegic,

and before any one is really competent to prescribe lenses he should know the total error of refraction. When I find that my result at the trial case coincides with my retinoscopic finding I am certain that I have a complete relaxation of accommodation and not until then do I know.

Frequently have I seen young adults wearing a low minus cylinder with no relief of asthenopic symptoms, who when properly refracted with a real cycloplegic were found to need plus cylinders at the opposite axis, and on wearing their proper correction symptoms were completely cleared up. This error will get past the best retinoscopist, unless he has complete relaxation of accommodation and checks his finding at the trial case. This has become so common with me that I consider all patients wearing low minus cylinders as potential plus astigmats.

There is also another common class who would not exist if we were to give the proper heed to complete cycloplegia, and that is the patients usually of thirty to forty years of age, who wear minus sphere or sphero-cylinders and are as a matter of fact hypermetropic. These are the most grateful of patients, and although I grant that theoretically it is impossible to make this error I venture that all of us have found it in patients previously refracted by competent men. In passing, I want to say that in some of the cases of spasm of accommodation complete cycloplegia is the only treatment that will relieve the patient and in some of these cases this is by no means easily attained.

As an example, a lady of forty-five, wearing medium high minus spheres (and she accepted them at the trial case) came to me with violent asthenopic symptoms who on ophthalmoscopy I believed not to be myopic. It was with considerable difficulty that her accommodation was relaxed. In this case homatropin hydrobromid was of no avail, one per cent atropin sulphate four times a day was used, but she still insisted on minus lenses (and practically as high as before), then two per cent atropin sulphate was used, procuring the desired result, after which her vision without lenses was practically normal for distance. But it was necessary for some time to use atropin sulphat or hyoscin hydrobromid from time to time for her to remain free from symptoms and to retain normal distant vision.

It is my practice to use either atropin sulphate or hyoscin hydrobromid in all refractions in chil-

dren under the age of fourteen, and unless there is some definite reason in children to sixteen or seventeen. When atropin sulphate is used it should be instilled four times a day for three to four days if one desires to be reasonably certain of complete relaxation of accommodation. I have time and again prescribed atropin sulphate solution for use for three or four days and then not found complete cycloplegia and found that the drops had been missed once or twice, which in my opinion was responsible for the incompleteness of its action. From this experience I have formed the habit of insisting on regularity in the use of the drops for three or four days, and usually I specify the hours when they are to be used.

I have for a number of years been rather certain that, if for any reason the child could not be held for three or four days, the instillation of a single drop of a hyoscin hydrobromid solution is practically as good as the atropin sulphate used for days. I am at least convinced that it is as reliable as atropin sulphate not used regularly. I have never been satisfied, however, to abandon atropin in refraction because of the very wide felt opinion, that it is the drug of preference for refraction in children. Hyoscin hydrobromid is an admirable drug for use for examination of strabismus cases in young children, when for any reason there will be difficulty in having the child return in a few days; in these cases a single drop may be instilled and the eye examined in thirty to forty minutes; this method of use of scopolamin hydrobromid has only one objection and that is its high toxicity and that I think may be largely obviated by proper use.

To reiterate my opinion of the comparative value of the three common cycloplegics, homatropin hydrobromid, hyoscin hydrobromid, and atropin sulphate, for refraction up to the age of fifteen or sixteen years.

First: Homatropin hydrobromid is probably the poorest drug for use in these cases, because while its mydriatic action may be complete it is a failure as a cycloplegic at this age.

Second: Atropin sulphate is probably the best drug, when used properly, because of its certainty of action and its relatively low toxicity when compared with hyoscin hydrobromid.

Third: Hyoscin hydrobromid is a drug of first value and in selected cases with proper precau-

tions in its administration it is very reliable, nearly as reliable as atropin sulphate.

Wood says "that hyoscin hydrobromid is at least five times as active as atropin sulphate and I am convinced that he has not overstated the facts.

From the age of fifteen or sixteen to forty, homatropin hydrobromid may be satisfactory, but its value increases in the average case as the age of the individual goes beyond thirty or thirty-five; in other words, in the active robust young adult I have found that homatropin hydrobromid used even eight or ten times will frequently fail to relax accommodation. When this obtains I often instill a single drop of hyoscin hydrobromid solution after telling the patient that his pupils will be dilated for three or four days, and only in the rarest case after this procedure does my trial case finding fail to coincide with the retinoscopy.

This procedure will suffice in the majority of cases but in the high hypermetrope who has been wearing a partial correction, changing lenses frequently which only partly correct the error, or in those patients with a lower error where there are frequent changes of lenses with partial or no relief of asthenopic symptoms, I feel that we have found a strong indication for refraction par excellence, which is in my opinion atropin refraction. In most of the troublesome type of cases enumerated above, the patient is refracted after atropin has been used four times a day for four days and the finding checked on the subsequent day, and the full correction prescribed and instructions given to procure the lenses while the cycloplegic action is still in force. This latter is important if good results are to be procured in atropin refraction, that is there is to be no past cycloplegic examination; the lenses are to be procured while the accommodation is still relaxed and the full correction is to be prescribed, otherwise there is no reason for throwing the patient out of service for so long a time.

In atropin refractions, as in others, I refract both eyes at the same time. I have tried one at a time, with an interval of ten to fourteen days, but it has not been so satisfactory as both at once.

Whenever I refract a patient where I am not very certain of the result, I tell them that if they do not get along all right we will use atropin sulphate; then I feel certain that if the symptoms

are the result of an error of refraction they will be relieved. If the lenses are procured during cycloplegia the vision may be some reduced at a distance, but patients usually feel that they are compensated for this discomfort by the relief of the asthenopic symptoms.

Beyond forty-five I think homatropin hydrobromid is usually sufficient for refraction, and I find myself gradually extending the age where I think a mydriatic should be used, especially where there are symptoms of eye strain, or where there is difficulty in getting an accurate finding. At this time I place the upper limit at about fifty-five years. All of the above I qualify by the statement, that one should eliminate the probability of precipitating a glaucomatous attack before the use of these drugs.

To recapitulate. In refraction cases:

First: Atropine sulphate is probably the most reliable and safest drug.

Second: Hyoscin hydrobromid is practically as certain and if it were not for the general attitude on the subject I would probably use it in place of atropin sulphate; and there is a great advantage in that the pupil does not remain dilated so long and it does not require so long to get the action.

Third: Homatropin hydrobromid is practically satisfactory beyond the age of forty-five, and in probably seventy-five per cent of cases from fifteen to forty-five years.

In treatment hyoscin hydrobromid has a very wide field of usefulness. It is in my experience superior to atropin sulphate, even in solid form, where difficulty is experienced in dilating the pupil. I have frequently had the experience of being unable to dilate the pupil with two per cent atropin sulphate and cocain hydrochlorid solution, or with two per cent ointment, where the action of a single drop of a one-half per cent solution of hyoscin hydrobromid flooded over the cornea, exerted a terrific increase in the pull of the iris. This action has been common in my experience, and when I compare it with the use of solid atropin the latter seemed no more active. For this reason I have abandoned the use of solid atropin.

In the patient with slight iritic irritation as a result of a mild corneal lesion, which will probably clear up in a very few days hyoscin is an admirable remedy because of the rapidity of procuring maximum action and its compara-

tively transient action. Hyoscin because of its active pull on the iris is valuable in the early treatment of iritis; first, because it will usually dilate any pupil within an hour, if the cornea has been cocaineized and the cornea flooded with one-half per cent solution and heat applied that will dilate in a day or two with very active atropinization. Hyoscin again gives a very valuable hint as to the probability of relief of pain in a case of iritis. Because of its very active and rapid action, I have formed the habit when I see an iritis with considerable pain, of cocaineizing the eye, flooding a single drop of one-half per cent hyoscin solution over the cornea and waiting thirty minutes, I may flood another drop over the cornea, but never any more, if at the end of this time the pupil is pretty well dilated or dilation is well started I give a good prognosis as to pain, but if it is still tightly bound down I feel that pain is not going to be easily relieved by local treatment of the eye.

The method of administering these remedies should receive a word. *Homatropin hydrobromid*: I have abandoned the use of discs. I use a fresh solution (made fresh at least once a week) of two per cent homatropin hydrobromid and one per cent. cocaine hydrochlorid. This is dropped in the conjunctival sac every five to ten minutes a varying number of times dependent upon the age of the patient. From fifteen to twenty years eight times, twenty to thirty six times, thirty to forty four times, forty to fifty three times, beyond fifty once or twice only.

Atropin: For refraction, aqueous solution is used four times a day for three or four days, in patients beyond six years of age a one per cent. solution, three to six years one-half per cent. and weaker below three. In treatment, if the aqueous solution of one or two per cent. atropin can be flooded over the cornea when there has been a few drops of four per cent. cocaine hydrochlorate previously used, I think the action is superior to the ointment. I have never been able to convince myself that the ointment was more valuable than aqueous solution, if the solution was used as above indicated. This I think is due to the difficulty of absorption of oils by mucous membranes.

Hyoscin: The hydrobromid is used in a solution; the maximum dose in adults is two small drops of one-half per cent. solution, with the excess mopped up at once, and the pressure made

over the sac, this means that one drop may be used in each eye or two drops with an interval in one eye. The above is the maximum dose and must be used with great caution. I more frequently use a one-fourth per cent. solution as above but in iritis the one-half per cent. solution is much more active. The one-fourth per cent. solution may be used twice, with care, as young as twelve years, from twelve to eight about one-sixth or one-eighth per cent., from eight down much weaker.

If you are not utilizing hyoscin I ask you to try it and remember that many of our most valuable remedies must be used with caution. Don't try to use hyoscin as you would atropin.

I want to again emphasize the value of flooding the solution over the previously cocaineized cornea. Since the paper here last year I have used weak solution of 0.01 to 0.001 per cent. of atropin in a few cases, but am not sufficiently certain to give my views.

In closing I want to say that there are many mydriatics which we might have considered but time precludes; I have at least covered the most important.

THE DIAGNOSIS OF MYXEDEMA IN ADULTS TREATMENT WITH THYROXIN

ARNOLD S. JACKSON, M. D.

Section on Surgery,
Jackson Clinic,

MADISON, WISCONSIN

The diagnosis of myxedema is probably more frequently overlooked than that of any other of the comparatively common diseases. Many excellent physicians frequently diagnose myxedema as primary or secondary anemia, nephritis, eczema with cardiac degeneration, and so forth. Even the most careful diagnosticians fail to recognize the condition unless they are on the alert for myxedema in every possible case. The clinical diagnosis in these cases is often so difficult that even after a careful history and physical examination it is at times impossible to express a definite opinion. The advent of the basal metabolic unit has practically obviated this difficulty, since it serves as an accurate index to the presence or absence of hypothyroidism.

In 1850, Curling called attention to the relationship of the absence of the thyroid gland

and "symmetric swellings of fat tissue at the sides of the neck connected with defective cerebral development." In 1859, Schiff²⁸ noted that removal of the thyroid of the dog was followed by a definite chain of symptoms, terminating in death. Gull, in 1874, described a "cretinoid change in women," and as a result of the observations of Ord and other English physicians, myxedema was established as a distinct clinical entity. In 1887, Reverdin produced experimental myxedema by total or partial thyroidectomy, and in 1892, Kocher reported that thirty of 100 thyroidectomies were followed by "cachexia strumipriva." In 1884, Schiff,²⁹ in further experiments on dogs, noted a fatal issue in sixty instances of excision of the thy-

roid. Internal secretion was first pointed out by Schiff,²⁹ and the isolation of iodothyron by Baumann, in 1896, indicated its relation to iodine metabolism.

Symptomatology

Women are much more subject to myxedema than men, the ratio being 6 to 1, according to Osler,²¹ 5 to 1, according to Sturgis, and 4 to 1 according to Phillips. In the twenty-four cases which I have observed the proportion was even greater, being 7 to 1. Although myxedema may occur at any age, it is most generally found in women of middle age.

Osler²⁰ asserts that exophthalmic goiter and myxedema are often associated, the former state preceding. Osler's findings were based on ten cases observed over a period of sixteen years. Anders also states that myxedema and exophthalmic goiter are intimately related and not infrequently associated. Plummer's²⁵ experience is contrary to this view regarding the relation of goiter and myxedema, as in observations of several hundred cases of thyroid disease, he has not yet seen a patient in whom myxedema developed on exophthalmic goiter. In examinations of many cases of myxedema and of exophthalmic goiter I have never been able to elicit anything suggestive of the two diseases occurring in the same individual. Since the symptoms and physical signs are diametrically opposed and since the basal metabolic rate is greatly elevated in the one condition and always subnormal in the other, there seems to be no reason for confusing or associating the two. Myxedema, however, may develop after thyroidectomy with subsequent infection and destruction of the gland. The association of exophthalmic goiter with a disturbed condition of other glands of internal secretion is clearly recognized. The same is true of myxedema.

The typical history for which one should be alert is that of a middle aged or elderly woman, of rather bulky appearance, who has been treated for several years for Bright's disease, anemia, weak heart, or general poor health. She complains of little herself and it is only after close questioning that her real afflictions may be brought out. Frequently the only complaint is dyspnea, swollen ankles, a tired feeling, or a desire to do nothing. It may be possible to elicit a history of from two to four years' duration, beginning with a gradual increase in weight, so



Fig. 1. Patient, aged 68, who has taken thyroid extract for thirty years in treatment for myxedema.

roid, and pointed out that the animals could be saved by a previous graft of part of the gland. This finding led Murray,^{16, 17, 18} in 1891, to give thyroid extract hypodermically to patients with myxedema with wonderfully successful results. The following year, Fox, Fenwick, and McKenzie reported the beneficial effects of feeding thyroid extract by mouth. Horsley's^{10, 11} observations on monkeys and the collective investigations of Semon showed that cretinism, myxedema, and cachexia thyreo-strumipriva are one and the same. The part of the thyroid as an organ of

that at the time of examination the patient is 10 to 50 pounds over weight.

The mental symptoms of myxedematous patients are signalized by dullness of intellect, indifference to surroundings and events, irresolution, and loss of memory. The development of a general mental and physical inertia is manifested in various ways. One woman said, "They got to singing the psalms so fast in church that I gave up because I was always two lines behind." Another remarked that her children were continually scolding her for being so slow, and another complained that her husband always walked three paces in front of her. The patient desires only to sit still and be let alone. She requires a long time to make a decision to perform trivial tasks and a still longer time to do them. A tendency to become forgetful and at times to be irritable is noticed. In some cases, the mental symptoms predominate to such an extent that some form of delusional insanity or dementia may be diagnosed, or even cerebral tumor. Emotionalism may be marked, many patients having alternate periods of depression and hilarity.

A feeling of coldness is often complained of, and this may be so severe that the patient actually suffers in winter and seldom goes out of doors. In the warmest weather it is refreshing to see such a patient basking in the sun in perfect comfort. Women are supposedly vain concerning their complexions and faces, and yet it is remarkable what changes these can undergo without attracting the patient's attention. On careful questioning the fact may be brought out that about a year previous the patient noticed some puffiness under the eyes and swelling of the nose. The face becomes dull and heavy with coarse "cauliflower" ears, a huge fat nose, and thick negro lips; the complexion is sallow and pasty with occasional cyanotic areas over the cheeks. Perspiration is rarely noted in these patients and the skin is dry and coarse. The hair is scanty and receding from the forehead, and the eyebrows are poorly marked. Sturgis has noticed a border of alopecia in some of his cases. The expressionless face somewhat resembles that in paralysis agitans, but lacks the mask-like character.

The special senses of hearing and sight are usually impaired to a greater or less degree. Deafness is a rather common complaint and is

usually unilateral. Like the other symptoms, this annoying feature disappears under treatment. The question of histologic change in the eighth nerve tracts of myxedematous patients remains unsettled. The hypothesis that impairment of hearing is due to edema of the mucous membrane of the middle ear was upset by Denker, who found no histologic changes of a myxedematous character in thyroidectomized dogs that became deaf after operation. Barlow, in a study of a series of cases of myxedema, found that "there is a definite clinical vestibular picture which can be demonstrated by the equilibration test and is in the nature of delayed response to stimuli."

Anemia is often severe in these patients. The only patient with myxedema whom I have known to die prematurely had such severe anemia that it was impossible to rule out pernicious anemia, although the blood picture was that of secondary anemia. The hemoglobin usually ranges between 40 and 60 per cent, and the reduction in erythrocytes ranges from one to three million.

A very striking feature and one commonly overlooked by authors of text-books is the deep, husky voice. The tongue is very large and coarse, and speech is remarkably lethargic, monotonous, and drawling. The patient perhaps has noticed that the tongue has felt thick for some time. The first symptom one woman complained of was an inability to enunciate certain words while singing. An exasperatingly long time is required to tell of a short detail. It has been asserted that the change in voice and difficulty in enunciating are possibly due to edema of the vocal cords and thickening of the tongue; but I believe the pathologic basis of these symptoms is a matter of conjecture as is that of the condition in the eighth nerve tract which causes delayed response to stimuli.

Headache, usually of the dull frontal type, without localization, is a common complaint in patients with myxedema, who are also frequently found to suffer with rheumatic pains. It is an interesting fact that during the first few days following treatment these symptoms are intensified.

Physical Findings

Physical examination does not add much information that has not already been brought out by the history and appearance of the patient. There is general obesity, with edema usually

most marked in the lower extremities. The skin is very dry and scaly, more especially on the dorsum of the hands and on the legs. The brownish pigmentation seen in some of these patients resembles that often noted in patients with exophthalmic goiter. The hair of the axillae and pubis, as well as the eyebrows, is coarse and brittle, and scant or absent. The subcutaneous fat is abundant and the presence of supraclavicular and infraclavicular pads of fat may be noted. The nails are brittle. Usually the thyroid gland can not be palpated.

The hands present a characteristic appearance with stubby, stiff, and swollen fingers. If the patient wears a ring fitted before onset of the disease, it will usually be found cutting so deep into the skin that it can not be removed.

The pulse is regular and usually slow. The pulse pressure is low and the systolic blood pressure is usually not more than 120. The temperature is often subnormal. The gastric acids are low, a mild achylia being one of the diagnostic features. There is often polyuria, but not albuminuria.

The symptoms described are those characteristic of myxedema; one or all may be present in varying degrees. In cases in which the disease has persisted for two or more years, the diagnosis is usually evident at a glance. In early cases it is only after a search for other conditions has been abandoned that myxedema is considered. The findings may even then not be conclusive and an accurate diagnosis can not be made without determining the basal metabolic rate.

Differential Diagnosis

Nephritis, primary anemia, and eczema with chronic myocarditis are the diseases most commonly confused with myxedema. Because patients with myxedema often show evidence of edema of the face and extremities and present urinary findings suggestive of nephritis, they are often treated for chronic nephritis. The urinary findings, however, do not coincide with those of typical cases of Bright's disease in that there is little or no albumin, only occasional casts, and the functional tests and estimations of the blood urea are usually found to fall within normal limits. In contrast to nephritis, there is a tendency to hypotension. Pitting does not occur on pressure nor does fluid accumulate in the serous sacs. Moreover, the skin and voice

changes, achylia, and impairment of the special senses as noted in myxedematous patients are seldom encountered in those with nephritis. It must be remembered that it is possible for both diseases to occur in the same person.

Pernicious anemia is occasionally confused with myxedema because achylia, anemia, weakness, weight increase, and hypotension are observed in both diseases. The blood smear in myxedema, however, is that of a secondary rather than a primary anemia. Hamilton and Nixon have emphasized the point that cord changes are present in about 80 per cent of patients with pernicious anemia. Such patients assume a sallow, lemon tinge. The basal metabolic rate is lowered in both pernicious anemia and myxedema. In pernicious anemia the rate seldom falls below normal limits, but in myxedema it always drops to -15 per cent, or more. Less of hair and the scaly-dry skin characteristic of myxedema are not noted in pernicious anemia. On the other hand, glossitis and soreness of the tongue and mouth observed in pernicious anemia are not evidenced in myxedema.

In the case of a patient with myxedema a careful consideration of the symptoms will easily rule out a possible diagnosis of eczema with chronic myocarditis.

Anders calls attention to the fact that myxedema and acromegaly are occasionally associated and present certain points of similarity. Dry skin, thickened subcutaneous tissue, enlarged tongue, thickened mucous membrane, an irritable, dull mentality, and slow speech are characteristic of both diseases. However, general bony enlargement with separation of the condyles, enlarged joints, severe headaches, disturbances of vision, and bilateral hemianopsia are characteristic of acromegaly.

Treatment with Thyroxin

The isolation of thyroxin by Kendall and the development of means for determining the basal metabolic rate have revolutionized the diagnosis and treatment of myxedema. By measurements of the basal metabolic rate it is possible not only to confirm the diagnosis in evident or doubtful cases, but to determine accurately the progress of the disease. The limits for a normal basal metabolic rate are $+10$ to -10 per cent. Mild hypothyroidism exists when the basal metabolic rate is between -10 and -15 per cent. When the rate ranges from -15 to -40 per cent,

myxedema is present in increasing severity as the rate drops.

Although therapeutics is the weakest branch of medicine, there are two exceptions which strike the imagination with considerable force. One is the almost instantaneous cure effected by the passage of a bougie in the patient who has been unable to eat solid food for as many as ten years because of cardiospasm. It is then an immense satisfaction to watch the patient enjoy a hearty meal. The other triumph of therapeutics is the remarkable metamorphosis of a myxedematous patient following the administration of thyroxin. This is to my mind the most deeply dramatic event in modern medicine, affecting as it does both the mental and physical make-up of the patient.

Plummer,^{23, 24} in his early investigations, learned that 15 mg. of thyroxin could be administered intravenously in a single dose. As the reaction from this dosage was more marked than was desired, the amount was somewhat reduced. He learned that the normal thyroid gland contains about 15 mg. of thyroxin and that it is first necessary to restore this amount to the body. Hundreds of milligrams might be given by mouth without obtaining the desired result owing to the slow absorption from the stomach. When the normal amount is once present in the body tissues, however, the thyroxin content of the gland can be held at a level by continuing administration of the drug by mouth.

In rather severe cases of myxedema it is well to give intravenously 5 mg. of thyroxin every week for three weeks. In other less severe cases, 10 or even 12 mg. may be given at the initial dose. Within twenty-four hours following the injection of thyroxin there is a reaction of varying intensity. Usually the patient complains of headache and a general stiffness and aching, especially marked in the back and legs. There may be nausea and vomiting. The headache often becomes severe after forty-eight hours and may persist another day. Patients should be warned to expect this reaction and should be advised that it is essential to their improvement. Under such mental preparation they complain but little.

Improvement, often noted within twenty-four hours, may be striking as early as the third day after the administration of thyroxin. Among the first symptoms to disappear are the husky

voice, the dull expression, and the feeling of chilliness. The voice rapidly rises in pitch; the facial expression changes so greatly that at the end of a week the patient appears to be a different person; and the feeling of coldness is replaced by a comfortable sensation of warmth. Hearing improves rapidly, and perspiration is noted for the first time since the onset of myxedema. Above all, one is struck by the change in the demeanor and attitude of the patient who literally "sits up and takes notice for the first time." Energy once more returns and the face is lighted with animation and expression. Speech and thought become more rapid. The tendency to nod and sleep during the day disappears, and the appetite improves. As the edema begins to disappear, the weight drops so rapidly that there may be a loss of from 10 to 30 pounds in a month. The skin changes are slower to occur, but the dry scales slowly drop off and the dermis assumes again its soft and normal appearance and feeling.

The metabolic rate of a myxedematous patient climbs slowly to normal according to the size of the initial or subsequent doses. If 15 mg. of thyroxin have been administered over a period of three weeks, it requires this length of time before the metabolic reading is well above the zero mark. For example, December 6, a patient with a rate of -27 per cent was given 5 mg. of thyroxin intravenously. December 11, the rate rose to -15 per cent, when the dose was repeated. December 18, the rate was -10 per cent. When the normal level has been reached, the metabolic rate must be ascertained every day until the daily dosage necessary to maintain it for that patient has been established accurately. An approximate determination of the necessary dosage may be made and the patient sent home for a month or two, at the end of which time he should return for further tests. It may then be found that the daily dosage has been too small or that a smaller dose will be sufficient. Eight-tenths of a milligram two or three times a day before meals is the usual daily dosage given by mouth. It is often preferable to administer a single large dose, as 1 mg. before breakfast, because absorption occurs quicker and better in an empty stomach.

Thyroxin is far superior to desiccated thyroid because its strength is known; it is many times more powerful; and the quantitative relationship

between the amount of thyroxin administered and the basal metabolic rate permits the daily dosage to be accurately measured.

A search of our records revealed the case of a patient with myxedema whom my father, Dr. James A. Jackson, treated with thyroid extract by mouth in 1893. I believe this case worthy of report, as the patient was one of the first in the United States to receive thyroid gland in the treatment of myxedema. Dr. William Jackson, of Boston, treated a patient with myxedema by thyroid therapy in 1892 or 1893.

EARLY CASE OF MYXEDEMA

Mrs. W. C. N., aged 38 years, complained of an increase in weight and edema of the eyes which progressed until the lids almost became shut; her eyes watered so excessively that it was necessary for her to use a handkerchief almost continuously. Her lips became bloated and her tongue felt extremely thick. Her legs and feet were so swollen that it was impossible for her to walk without a cane and the assistance of a companion. The skin was cold and dry and there was no perspiration on any part of the body. The patient enjoyed the hottest weather, required more than the usual heat and clothing on cool days, and suffered from cold in the winter. During the course of her disease, the onset of which occurred about eight years before treatment, her hair fell out so that she was forced to wear a wig to conceal her complete baldness.

The change in the patient's voice was extremely marked; she had been a singer, but it was necessary for her to give up all effort in this direction early in the disease. The soft, clear quality of her singing voice has never returned, although her speaking voice has become well modulated and very pleasing.

The mental symptoms in this case were as typical as the physical findings. The patient was extremely forgetful, inattentive and rather painfully dull and stupid. She was often at a loss for words and it was not unusual for her to lapse into a state of utter blankness after starting to make a remark on some trivial matter.

Therapy with thyroid extract by mouth was instituted in the summer of 1893. The reaction to the first administration of the drug was very severe. She continued taking the prescribed doses regularly with resulting disappearance of all symptoms of myxedema and apparent return to a normal physical and mental state. The change in her appearance and facial expression was so pronounced that she was compelled to go through the embarrassing ordeal of introducing herself even to her most intimate friends. If she discontinues the use of thyroid extract, the early symptoms of myxedema, such as edema of the hands, supervene, and serve as a sharp reminder of the necessity of regular, periodic medication. Her basal metabolic rate at present is —4 per cent. I have hesitated to substitute the newer form of therapy in this

case, since the patient has responded so successfully to treatment with thyroid extract for thirty years.

SUMMARY

The diagnosis of myxedema is easily and frequently overlooked, since the patients make very little complaint with regard to their condition and it is, therefore, necessary to elicit the history by careful questioning. Contrary to the old and generally accepted idea myxedema does not develop in association with goiter.

The special senses of sight and hearing are usually disturbed, the hair is sparse, and the skin dry and scaly. The patients are obese, drowsy, lethargic, and suffer with rheumatic pains and a sensation of chilliness. In women the voice undergoes a striking change, becoming coarse and husky. Anemia, slow pulse, subnormal temperature, low systolic blood pressure, polyuria, and mild gastric achylia may be noted. Slow pitting edema, more marked in the legs, is characteristic. Diagnosis may be confirmed by a basal metabolic rate determination of less than —10 per cent, and the progress of the disease may thus be measured.

Fifteen milligrams of thyroxin administered intravenously are required to bring the basal metabolic rate of a myxedematous patient to within normal limits. A variable daily dose of from 0.8 to 2 mg. of thyroxin by mouth is required to maintain this level.

Improvement following the administration of thyroxin is spectacular and almost immediate. The reaction of the patient is expressed by headache and general aching. The mentality, facial expression, voice, body temperature, weight, skin and general appearance rapidly return to normal, and edema disappears.

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THE TREND IN MEDICINE.*

HUGH N. MACKECHNIE, M. D.

CHICAGO.

It is customary with our presidents as with presidents of other organizations in their swan song to tell of some of the achievements of the year and make suggestions for the consideration of the succeeding administration. This recital and these suggestions are invariably and promptly forgotten. This precedent I will not follow and will save you the effort of remembering, or of forgetting the details. Only this will I say, in many things we have failed of execution and a few things have been accomplished. As they say in newspaper reviews, "historians in the far distant future alone can record their importance to the age."

One thing we are sure of at present is the changed and changing position of the practice of medicine—by this I mean change in the methods of practice as within our own ranks; and in the relation between the public and the profession. This is a matter deserving of very serious consideration on our part, for while there is no doubt of the importance of the physician there is in the

minds of some laymen a doubt as to the superiority, if not the indispensability of the profession.

I am sure you will agree with me that in 1914 not even the wildest prognosticator would have ventured a statement that our world would have come through the experience of the last nine years or that it would in this year be in its present condition of turmoil and strife. Such a thing was inconceivable and yet it has occurred. Business which had been moving along with due decorum was suddenly shaken out of its shoes (as it were) and ever since has been seeking firm cool ground whereon to place its feet. The business man has found himself unbelievably busy adjusting his business to altered conditions and keeping himself solvent. He has had to learn that former methods as well as former stocks did not satisfy the buyer nor produce profits. Those who were not quick to learn and quicker to act suffered accordingly. Those who felt a desire to enjoy the post-war rest and relaxation till adjustment in life and living should take place found themselves in an incredibly short time, utterly lost.

A similar altered condition is found in educational, in religious and other circles. There is a demand for more practical and less mystical solutions for the problems of life. While this has been going on in these other circles, a condition not unlike it has been going on in the professional. Many new things have been learned by our profession, many ideas have gained entrance to the lay mind, and with the two factors it seems to me that whereas the business world has come through the worst of its difficulties, the educational, religious and professional have only gotten started toward their adjustment.

Within the experience of most of us, the family physician in the city as well as in the country, who was also the family confidant and the family advisor, represented the highest type of our profession. True, indeed, there were the specialists who were called in as his aids in time of need, but they seldom were of the inner charmed home circle. Today the family physician in its old interpretation is a person almost unheard of, for even the youngest of our ranks must needs be a specialist in some department. As a result of this attitude within the ranks of the profession there has been developed in the minds of the laity a certain discounting of the general practitioner and as a natural consequence along with

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him was included the profession at large.

Then going a step further we ask how much this skepticism has given impetus to the development and progress of the various paths and isms. With a doubt implanted in the mind of the laity how easy by adroit publicity and extravagant claims it is to develop a fixed idea of the greatness and wonder workings of the one and the decreasing value of the other.

Another condition not less disturbing is found in numerous societies organized and promoted to improve the care of various sufferers. An enumeration of them sounds like an indictment of the profession for non-performance of its duty — clinics, dispensaries, health centers, welfare societies—infants, children, prenatal, post-natal, tuberculosis, venereal, and lastly, birth control. Some of these societies are indispensable, many are commendable, probably all of them have a modicum of value.

A pronounced advancement has been made in recent years on the part of health officers in city, county, state and national governments to overstep the bounds of their power and take on the treatment of various diseases. Their creation was for a certain definite purpose — sanitation, hygiene and such matters pertaining to preventive medicine as are for the health and welfare of the community. With the full development of the germ theory of disease it has been a simple matter to go on to control first contagious, then infectious diseases. Listen to this list and recall approximate dates for their classification by, and placement under government supervision—smallpox, diphtheria, scarlet fever, typhoid, tuberculosis, pneumonia and venereal, and all to be quarantined under city or state government control, and probably treatment. With a very little stretch of imagination we can see some aggressive health officer place all diseases under the contagious or infectious group and the complete treatment of disease in the hands of the government. The steps in the actual progress along these lines are so diminutive that unless we take a survey over a number of years we cannot see the advance and, therefore, are comfortably satisfied.

A mere recital of conditions as they are is not the point I wish you to carry away. What I want is more to impress on you that no matter how much we might deplore it, the conditions in the practice of medicine, the attitude of the public

and everything that pertains to our external relations is changing. This being so, what part are we going to play in directing the change? A full answer cannot be given instantaneously, but only after serious and careful deliberation. Furthermore, it is too weighty a problem for one person to solve or perhaps for many persons to solve. If I were to attempt to suggest a solution, it would be that the organized medical profession take an active part not only in guidance of, but in co-operation with all these agencies. Such a cooperation in the formative or early developmental period would save many a layman from error, prevent some worthy cause from going on the rocks and keep away misunderstanding between those who are so dependent on each other. Any other attitude will be construed as one of obstruction and misinterpreted as an unwillingness on our part to care for those in trouble.

But I hear some one of the economists say that would be ruinous to business. May be so, but I doubt it. I believe it would make possible the redirecting of much work to the family physician to whom it rightfully belongs. I believe it would save many cases from continuing at the dispensary and free clinics to abuse the privileges of medical charity.

Beyond those which we might save through co-operation with these agencies there is much more allowed to get into the hands of the health department because of our own inactivity. For example, consider the preparation for school of children in the families of your clientele. How many of you have examined all these children and given them their inoculations and vaccinations, or for how many have you removed diseased tonsils and adenoids? How many have you weighed and measured and advised for diet, exercise and sleep? How many of you check up in three months on the result of your advice? Failure to do these things is not always the worst of it. It oftentimes leads the patient to the dispensary where a knowledge of other facilities is acquired and at the same time a lack of confidence in the family physician is engendered.

Or speaking of another matter which might be properly called preventive medicine, how many of your adult clientele, particularly those in mid-life or declining years, have you thoroughly examined or even advised to be examined annually or better still, semi-annually? What a satisfaction it is to the business man to know that he has

a clean bill of health; or that his infirmity found at a previous examination is improved or at least no worse; or that the trouble just found can be checked in its progress.

Many other things could be mentioned, but I leave them for you to conjure up. It is opportunities of this sort that we fail to grasp and in our failure lose the remuneration that goes with them and also the gratitude of the patient.

One thing I would like to say in closing. With all our discussion of the economic side of things do we not sometimes lose sight of the professional and scientific side. I say this after three years in the Council and five years as an officer of the Society during which time I have noticed that only a small percentage of our members attend our scientific meetings. It makes us wonder where the others get their inspiration. Our Hippocratic oath directs us in our chosen work and informs us of the responsibility therein. A brief experience will surely teach us that that responsibility lays upon us great demands in time and energy for preparation and excellency in performance of our duties.

True, indeed, in this day of rapid living, expensive tastes, of great demands upon our bank accounts, we cannot overlook the economic responsibility, but I believe that a greater stress on professional knowledge, with a finer professional service, will bring to us rewards far greater than any we can otherwise hope to receive.

CERVICAL RIBS AND EXOSTOSES*

J. F. SLOAN, M.D.,
PEORIA, ILL.

Cervical rib was first described by Hunauld in 1742, first recognized in the living by Cooper in 1818 and first successfully operated on by Coote in 1851. Sixty to seventy per cent. are found in females. They are bilateral in 67 per cent of the cases, but in only 30 per cent. are the symptoms bilateral. Their frequency of occurrences is variously estimated at from one in 2,500 to one in one hundred, and only five to ten per cent. give symptoms. They usually grow from the seventh cervical, but occasionally from the sixth and a few cases are recorded from both on the same side.

The cause is unknown. Embryologically it is

due to an excessive development of an ossific center in the anterior root of the transverse process, which corresponds to the costal element. Some think that the exostoses and prolongations of the transverse processes are due to chronic inflammation with production of the new bone.

Gruber's classification is the one generally accepted and divides cervical ribs into four classes, depending on their length:

1. A costal process increase not reaching beyond the transverse process. Cases under this group are not classed strictly as cervical ribs.
2. Extending beyond the transverse process, terminating in a free end or united to the first rib.
3. A longer rib than in Class 2 and attached to the first rib by a ligament.
4. Complete ribs.

The symptoms do not usually develop until after the second decade and are thought by some to be due to the loss of fat tissue during the course of some disease. Although several other theories have been proposed, this seems to be most generally accepted and plausible. The symptoms in their order of frequency are, first, pain and sensory symptoms, at first recurrent and then constant, referred most frequently to the ulnar border of the forearm, little and ring fingers, shooting or darting in character and may be relieved by change of posture. In the shorter ribs and exostoses they may be more pronounced in the neck and shoulder. They are intensified by cold and motion. Paresthesia occurs in the hands and fingers in 20 per cent of the cases and may reveal the existence of pressure on the brachial plexus months or even years before paralysis develops.

Second, recurrent pallor of the hand and forearm.

Third, motor paralysis with atrophy.

The first motor fibers to be impaired are those controlling the finer movements of the hand and are evidenced by difficulty in sewing, writing, picking up small objects, etc. Later the extensors of the wrist and fingers become weak. The muscular involvement may affect the thenar eminence at an early stage. In a large percentage of cases the abductor and opponent's policies are involved while the abductors are not affected until later. Vascular symptoms begin

*Read before Section on Surgery, Illinois State Medical Society, Decatur, May 16, 1923.

in the fingers and spread up the arm as the arteries gradually become obliterated.

A condition in which the symptoms are indistinguishable from those of Raynaud's disease is met with. Trophic ulcers similar to the trophic lesions seen in syringomyelia may occur.



Fig. 1. Exostosis on right (faintly shown) and rudimentary rib on left

Implication of the sympathetic fibers is evidenced by pallor, cyanosis and localized gangrene. Tumor formation in the supraclavicular triangle has been noted in 20 per cent of the cases; it is tender to the touch and on it may be felt the subclavian artery over which a thrill and bruit may be found. This may be mistaken for an aneurism.

Cases of spasm of the diaphragm due to pressure on the phrenic nerve and hoarseness due to pressure on the recurrent laryngeal have been reported.

According to Gano in 2 per cent of persons affected with scoliosis cervical rib is present, while 5 per cent of those who have cervical ribs are scoliotics. Syringomyelia in association with cervical rib has been described by several observers. The condition must be differentiated from anterior poliomyelitis, syringomyelia, Raynaud's disease, peripheral neuritis and numerous other conditions, which is usually quite readily done by the use of the x-ray in conjunction with the history and findings described. The treatment is palliative and operative. The former consists of the use of different mechanical contrivances to relax the structures in the region of the rib, electricity, rest in bed, massage, etc., which are usually a waste of time and excision becomes necessary.

This is rather a difficult operation because of

the many important structures found in this region, and the gentleness with which they must be handled to avoid pain and paralysis which may last for months or even be permanent. Three routes are described, the anterior, the most difficult is practically the same as that employed for ligating the subclavian artery. The lateral is usually done through an incision over the anterior edge of the trapezius.

(In the shorter rib and exostosis, on account of the location of the scar, I prefer an incision a little below the transverse process of the seventh, extending from the anterior border of the trapezius to the posterior border of the sternomastoid through the skin and platysma.)

The scalenus medius and brachial plexus are retracted gently forward, the transverse cervical artery and vein ligated, care being taken to avoid injuring the nerve to the serratus which passes through the scalenus medius.

The rib is next detached from the transverse process and body of the vertebrae and with its periosteum removed.

(This, I think, is much the easier route for



Fig. 2. Exostosis on right removed

removing exostosis and the shorter ribs.) The posterior route is through a vertical incision one inch from the spinous processes with its center at the level of the seventh cervical spine. The trapezius is reflected forward and the rib exposed from behind. Among the structures

which may be injured during the course of the operation are the brachial plexus, posterior thoracic nerve, nerve to the rhomboids and the suprascapular nerve, the thoracic duct (on the left side), the pleura and the inferior cervical

on the left, as shown in Fig. 1. The symptoms at that time were practically all referable to the right side. Her condition became so aggravated that the only relief was secured by bandaging her to a high back chair. In April we removed the bone on the right side. (See Fig. 2.) It was about as thick as an oyster shell with a serrated sharp edge. This was followed by a long convalescence and gradual improvement, and she has been free from pain on that side since about one year following the operation. The other side is causing some symptoms not sufficiently severe to cause her to submit to its removal.

The second case is that of a young lady, now 17 years old, who has given symptoms which may be traced back to the age of seven, but definitely to thirteen, when she had the pain in the neck and shooting pains down the arm on the ulnar side of the finger tips. These became so severe that the age of fifteen, on my advice, they consulted a surgeon in Chicago, who kept her in a plaster cast for almost a year without results. Last August I operated, removing the short growths. (See Figs. 3 and 4.) In a few weeks all the symptoms subsided and for about three months, she was entirely free from pain, when she began using a typewriter. This was followed by a recurrence of some of the symptoms, which are now subsiding.

I have operated on two other cases, one of the short rib type, Group 2 Gruber's Classification, and one under Group 3, both of which gave the usual symptoms and findings as described,—the latter including circu-



Fig. 3. Short exostoses

ganglion which lies anterior and a little below the base of the transverse process of the seventh. The wound should be closed without drainage.

In connection with this, I wish to mention five cases which have come under my observation, giving intense symptoms due to this condition. In all, the shorter growth has caused the most distress, and in three of them, the only distressing symptoms. The symptoms produced by the exostoses were of a more pronounced neuralgic character, and the most severe pain was in the region of the neck and shoulder. The local tenderness is also much greater in the exostosis and short rib.

The first case I wish to report is that of a lady forty-three years of age, who in January, 1913, underwent a severe abdominal operation. About six weeks afterwards, she began complaining of shooting pain, numbness and tingling in the region of the neck and shoulder, which darted down the inside of the arm and forearm to the finger tips. She was treated more or less until February, 1916, when she came under my observation. I x-rayed her and found an exostosis from the seventh on the right side and a short rib



Fig. 4. Exostoses shown in Fig 3 removed

latory disturbances. As there was nothing of special interest in connection with these cases, and I broke the x-ray plates, I will not go into detail concerning them.

The fifth case is one which I have not operated on.

It was rather unusual in the beginning, and as she had what seemed to be a uterine malignancy, we were rather puzzled for some time. The first pain she complained of was of a heavy boring character referred, as she expressed it, to the bone of the left arm. Since she was about forty-five years old and had evidence of uterine malignancy, we thought we might have a metastatic bone involvement and took several pictures of the humerus, which were negative. Later she began having symptoms referable to the neck and hands, so I radiographed the neck and upper thorax, which showed the condition as shown in Fig. 5. Again the short rib is on the side that is giving her all the symptoms,—the long rib on the right side causing absolutely no trouble. I have not operated on her, and



Fig. 5. Exostosis on left and rib on right

probably will not, until we are able to definitely determine what the uterine condition is. She gives the characteristic symptoms of this condition in a very severe form, but they are quite definitely relieved when the shoulder is raised with the forearm flexed.

While this subject is anything but new, it seemed to me since according to statistics so many people must be suffering from it, that it was permissible to bring it up for discussion. Since the majority of the patients whom I have treated have been the rounds of most of the cults before the cause of their trouble was discovered, I felt that it certainly was a fertile field for more accurate diagnosis and definite treatment on the part of the medical profession. I know the operation is a difficult one, the convalescence usually slow and frequently stormy, but the final results, especially in the severe cases will more than repay you.

DISCUSSION

DR. EDW. S. BLAINE, Chicago: I have been interested in the subject of cervical ribs and have watched for them very carefully in a large number of

chest examinations for pulmonary or cardiac conditions. They occur more frequently than is suspected. In all I found twenty or twenty-five which were not anticipated. I asked these patients questions with a view toward determining whether they had symptoms referable to cervical rib and in none of these did I find anything that could be connected up with this anomaly.

A second point is that in many of the cases that do come for x-ray study with a clinical diagnosis of cervical ribs we find no shadows to support the clinical evidence. The transverse processes of the seventh are the largest ones of the several cervical vertebrae. Several of the slides which Dr. Sloan has presented would fall within our conception of normal transverse processes.

A third point is that in some of the cases which do give symptoms classical of cervical rib but with no x-ray evidence of same, an exploratory operation will reveal, in a few instances, a fibrous band running from the sixth and seventh cervical transverse processes downward and outward to the upper ribs, section of which relieves the symptoms.

DR. ROY S. BARNSBACK, Edwardsville, Ill.: I would like to ask Dr. Sloan if he has tried the posterior incision. The case with which laminectomies can be done on the sixth cervical makes me ask this question. I have had no experience with cervical rib.

DR. JOHN F. SLOAN, Peoria, Ill. (closing the discussion): In answer to Dr. Blaine: It is perfectly true, of course, that there are a number of patients in which you can hardly see any change in the transverse process, but in those cases I showed, it grew out almost vertically from the transverse process and was only faintly shown by x-ray. It was about as thick as an oyster shell, very sharp, and seemed to project into the brachial plexus. This means intense suffering, and one of the patients shown had to be bandaged in a high back chair in order to give her any sleep.

Regarding the frequency, many observers working along autopsy lines have found them as frequently as 1 per cent. of all cases. Others who are working in x-ray laboratories, for instance, in the Mayo Clinic, found only 30 in 80,000 pictures taken. According to Murphy, there are only 5 to 10 per cent. of those with cervical rib who actually give symptoms. The rule in all my cases and in most of those reported in the literature is that the short growths and shorter ribs most frequently give symptoms, especially of the nervous type. The nerve irritation was not so pronounced in the longer ribs. Of course, the circulatory symptoms were only present in the longer type of rib, causing pressure on the artery.

Regarding the posterior incision, I cannot speak as I have been doing the operation by the lateral route and have never used the posterior operation.

MODIFICATION OF A THIMBLE FOR USE IN GASTRO-INTESTINAL WORK.

W. J. SULLIVAN, M. D.
CHICAGO.

A modification of the ordinary thimble as used by surgeons in gastro-intestinal work has been found by me to be of assistance in pulling a

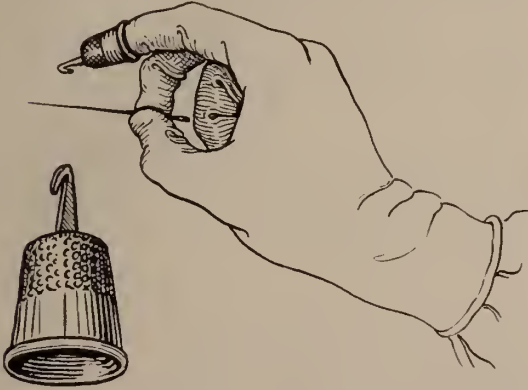


Fig. 1. Insert needle by holding it between index finger and thumb.

needle through a bowel and avoiding any jerky pull.

A small steel hook one-third of an inch in length, one-eighth-inch in depth, at its base and



Fig. 2. Hook is placed over needle and is locked by middle finger and thumb. Gentle steady traction can be obtained.

one-sixteenth of an inch in breadth is welded to the top of the thimble. The slot as shown in the illustration is one-quarter inch long, tapers to a point and has a one-eighth-inch opening. This will fit any straight intestinal needle.

The thimble is placed on the index finger of the right hand with the hook pointing toward the

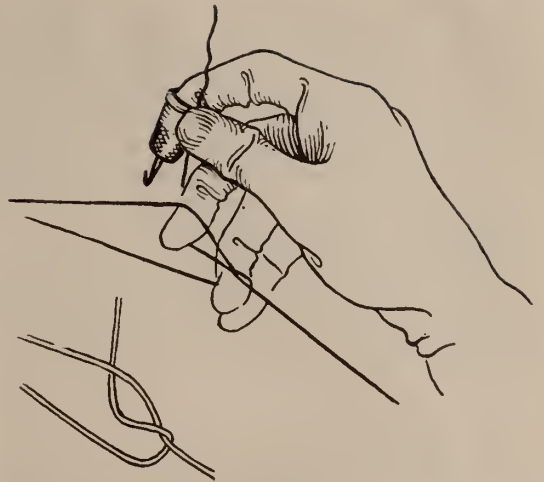
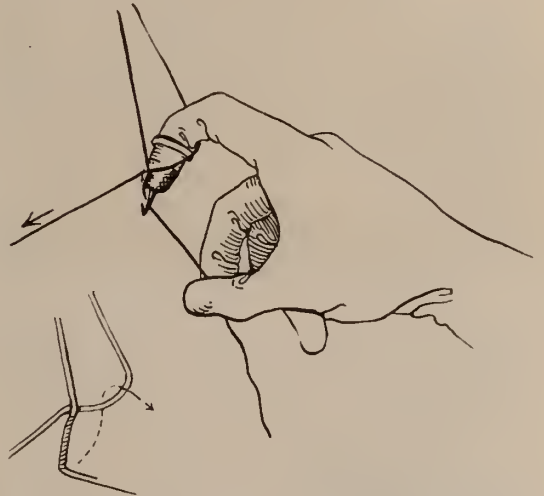


Fig. 3. A one handed reef knot can be tied by turning the hook from the palmar surface of the hand toward the thumb.



No. 4. The second half of the knot is completed by using the hook to pull through the thread.

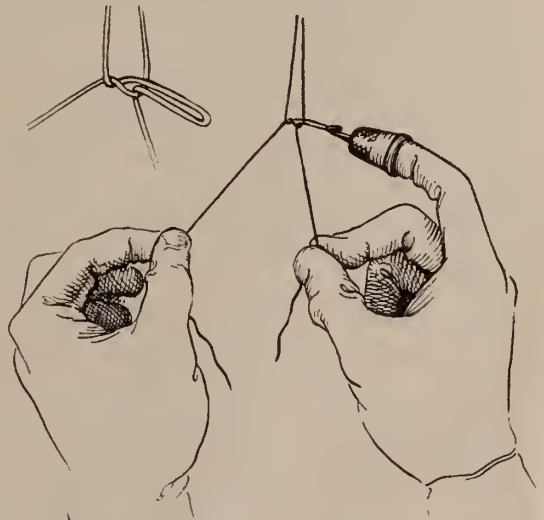


Fig. 5. The knot is completed.

palmer surface of the hand; the needle is inserted by the middle finger and the thumb. As the needle presents itself after passing through the bowel, it is grasped by the hook, locked by the middle finger and thumb and pulled through.

If the thimble is adjusted on the index finger with the hook pointing toward the thumb, it is of assistance in tying reef knots.

The best results are obtained by using the two and three-quarters-inch straight intestinal needles. The hook is of no advantage when using curved needles.

RENDERING THE LUETIC NON-INFECTIOUS A PUBLIC HEALTH PROBLEM*

JOSEPH WELFELD, M.D.
CHICAGO.

This is a public health problem of the first magnitude. The campaign against the venereal diseases which began in the last decade has been intensified during the last few years and is now in full swing.

During the early part of the war we realized that with the conquest of typhoid and the control of tuberculosis and other communicable diseases, we still had one major problem to cope with—the venereal diseases. The measures adopted in our army for the control of gonorrhea and syphilis gave gratifying results, for the venereal rate among our troops was far lower than that of the other combatants, and of any previously recorded.

We are attempting now to accomplish the same and better results among civilians and to this end the campaign is being waged from many different angles, all with the purpose of diminishing the ravages of the venereal diseases.

Police control and regulatory laws, sanitary and health control, and educational propaganda among the public and physicians as well, aside from the actual medical control of these diseases, are the most important of the various measures adopted.

This discussion will be presented purely from the point of view of the syphilologist. The other measures for the control and eradication of these diseases can be better presented by those who are conversant with those phases of the problem.

Of the three venereal diseases, syphilis causes

the greatest ravages and it is, therefore, important that we should lay most stress on the prevention of the spread of this disease. This centers itself into one main problem; that of rendering the luetic non-infectious.

For an understanding of its infectiousness and for the purpose of treatment and control, syphilis can be classified as acute and chronic.

Acute syphilis can arbitrarily be considered as the first six months of the disease—its active stage. Chronic syphilis is the later stages of the disease with latency and possible recrudescence and flaring up. Recurrences and recrudescences of syphilis, early and late, should be considered as acute manifestations and should be treated in the main as acute syphilis.

Since syphilis in its later stages is relatively only slightly infectious, our problem concerns itself with early syphilis, when the patient is actively infectious and a serious menace to all about him—the chronic syphilitic does not present this danger.

Two things stand out as the problem for the physician—early diagnosis and proper treatment instituted at once.

SALVARSAN: Shortly after salvarsan first appeared on the scene, that great teacher, John B. Murphy, prophesied that with its generalized use, the incidence of syphilis would diminish in the years to follow. It is undoubtedly true that syphilis is less prevalent now than in the pre-salvarsan era. Statistics as to the prevalence of lues are based upon general observations and vary considerably. My belief is that its incidence is not high; that a liberal estimate would be 3-4 per cent of the population infected and that preponderantly in the male.

It is a well known fact that lues has been diminishing in virulence even before the salvarsan period and particularly so since then. One rarely sees patients at the present time who present the marked and generalized manifestations described in our old text-books. Our patients are being treated earlier and more thoroughly and late bone and cerebro-spinal manifestations are not so common. In a walk about the Chicago loop one does not see anywhere near as many tabetics as in the years gone by.

Whether or not we believe in the absolute or ultimate efficacy of salvarsan, all are agreed that it will readily clear up early and active manifestations and for this, we are particularly in-

*Read before Section on Public Health and Hygiene, Illinois State Medical Society, Decatur, May 16, 1923.

debted to this drug. If it is possible to clear up the active manifestations rapidly, the patient is rendered less infectious and is less likely to spread the disease.

Since a few doses of salvarsan will destroy the spirochete in the primary and secondary lesions, this drug certainly has its greatest usefulness here, for this is the most infectious stage of the disease. The clearing up of the early manifestations will, as the years go on, lessen the incidence of syphilis, as it surely has done in the last decade.

This does not mean that we depend upon salvarsan alone. Mercury must always be given in conjunction with it and in the later stages of the infection, it is undoubtedly the better drug of the two.

But since this discussion centers itself on the problem of rendering the luetic non-infectious and as soon as possible, there can be no question that salvarsan holds first place as the drug to be used and administered intensively. Mercury has been in use for centuries; it is a specific and will accomplish the desired results, but the best results are gained by the combined use of both drugs.

DIAGNOSIS: As for diagnosis, the earlier the disease is recognized, the better will be the results obtained and the greater the possibility of cure.

Anyone can make a diagnosis if there are secondaries present or the Wassermann is positive. No lesion of primary lues should wait for a positive Wassermann in order that a diagnosis be made.

A great deal of valuable time is lost to the patient, for it is only during the first few weeks after the appearance of the chancre and before the Wassermann is positive, when there is relatively little systemic infection that we can offer him a probability of cure.

With the recent improvement of the dark field illuminator, the diagnosis of primary syphilis, the hard chancre, can be made by anyone, for the spirochete, if present, can be readily seen in practically all cases. There is nothing mysterious nor difficult in the use of the dark field illuminator. With very little practice, anyone can become acquainted with it.

It is far more important to be able to diagnose the primary lesion of syphilis than to know anything else about this disease. All the vast

literature on the entire subject of syphilis is relatively of little value compared with our ability to make an early diagnosis of primary syphilis, for if we can check the disease at this stage, we not only prevent its spread but very often cure the patient.

All lesions of the penis should be considered syphilitic until proven otherwise. All suspicious lesions should have repeated dark field examinations, followed later by the Wassermann. It is true that we can make a diagnosis of a hard chancre clinically in the majority of cases, but it happens so often that innocent looking lesions prove to be positive upon dark field examination that one must be on the lookout for spirochetes in all lesions.

PROPHYLAXIS: Prophylaxis against syphilis for those who expose themselves to possible infection; i.e., all men who have illicit intercourse, is in my opinion the best means of stopping the spread of this disease. A proper antiseptic applied early enough is almost a certain means of preventing infection. Our army statistics have shown that a thirty to fifty per cent calomel ointment applied properly to the exposed parts within the first one-half hour after intercourse will practically always prevent syphilis. Anyone who has had much experience with prophylaxis can testify as to this. The importance of prophylaxis cannot be over-emphasized, for we have not yet reached the stage in civilization where men will not expose themselves, even though they be aware of all its dangers. This after all is a certain means of control and prevention of the spread of syphilis.

DISCUSSION

DR. I. H. NEECE, Decatur: There are a number of questions I would like to raise. When is the luetic non-infectious? We are meeting it today in our clinic work. People are coming to us and asking us when they can get married and various other things. One man, non-infectious as far as open lesions, but concerned but as to future generations, is another problem. I am throwing out the question for some one to discuss, what we can say as to when they are not infectious to offspring. We have a question, what part latent syphilis has to do with being a menace; we see children infected from parents that give a negative Wasserman reaction. If this is congenital syphilis they must have gotten it from their parents. I want to stress the point he made of early diagnosis. We do know a great deal about syphilis, its infectiousness; we have a number of physicians today who still wait for secondary

lesions, positive Wassermans, etc., in Decatur, before they institute treatment. The doctor has said in his paper those we can cure of syphilis are those in whom we make a diagnosis early. We see a number of innocent lesions today that are specific proven by dark field examinations. They don't look like a chancre, and it is difficult to make a diagnosis before we get a positive Wasserman, notwithstanding the fact that our dark field examination don't always reveal the spirochaetes. In our work we treat every lesion as specific, regardless of what it is. I have in mind a case of a young girl whose teeth became loose; she went to a dentist who extracted several teeth. She had more trouble and went to another dentist and he made her a bridge and told her she had pyorrhea. She came to a third dentist to have some extraction done and he told her to have a blood test and see what the condition was. The test was positive. It isn't always easy to make a diagnosis of syphilis, especially in latent stages. These people may be a menace. How much of a menace are they and how far can we control those? The control of luetics is a big problem. People who are doing clinical work must meet it every day. I would like some who is doing special work in syphilis to give us this information.

ERRORS IN DIAGNOSIS OF THE SURGICAL ABDOMEN*

RALPH McREYNOLDS, M.D.
QUINCY, ILL.

Various authorities estimate the number of incorrect diagnoses in abdominal affections as anywhere from 40 to 60 per cent—the errors often being found only at post-mortems. Accurate diagnosis is usually a prerequisite to proper and effective treatment. Of course the differentiation of a perforating duodenal and gastric ulcer prior to operation is not at all essential from a practical standpoint—in such a case some surgeons might throw the blame on the medical men who had charge of the case a few months or a few years previous. Notwithstanding the fact that the percentage of errors is still so great, marked advances have been made in the past few years in our diagnosis of pathological conditions of the abdomen. These advances have come not only through the extensive use of the laboratories, x-ray, bacteriological, pathological and chemical, but more especially through the teachings of the larger clinics. These clinics have presented a wealth of material which has been made available to all of us by opportunity of assisting, visiting and through various pub-

lications. These published articles have been made worth while not only because of the large amount of material but more especially because of the more accurate, systematic and detailed records now being kept. A report on several hundred cases of any one disease made up from an accurate and full history, examination findings prior to operation or death, and findings at post-mortem or operation permit one to draw some conclusions that have a stamp of finality. Further, such reports stimulate keener observation and more accurate and detailed records in the smaller hospitals and clinics. As one reads such reports like, for example, those published by the Massachusetts General Hospital, he begins to appreciate that there are many physicians who do not hesitate to confess their mistakes. We are impressed most strongly with the idea that both failures and successes should be reported—with emphasis on the failures.

Now if you were a baseball player and got a hit every other time you came to bat, you would have good reason to be very proud of your record. But, if you were a patient and appreciated the fact that you had only about half a chance of having your trouble properly diagnosed you would present a marked contrast to yourself as a baseball player. How can we increase our batting average? Now I have no new "Abrams' Diagnostic Device" to present to you whereby you can take a drop of blood from your patient and tell at once whether he has cancer, syphilis, tuberculosis, renal calculus, or what not. I simply want to present to you some well established facts in new form, if possible, and to emphasize what to me seems some weak points in our daily routine examinations. Most of us have made a sufficiently large number of mistakes in our diagnosis of abdominal conditions that we have at least begun to appreciate some of our shortcomings; yet how little effort we put forth to better our judgment! Too often the surgeon is satisfied to make a diagnosis of "operative condition." I am a firm believer in a full preoperative written diagnosis; not that in every case it is necessarily essential, but it is a mighty good habit which will tend to lessen snap shot diagnoses and unnecessary operations.

We usually divide the surgical abdomen into acute and chronic types. The field of the acute abdomen belongs almost exclusively to the surgeon. The acute abdomen makes us think first

*Read before the Section on Surgery of the Illinois State Medical Society, Decatur, May 16, 1923.

of the appendix, which is said to cause at least 80 per cent of our acute abdominal conditions. After appendicitis the most common diseases causing the acute abdomen are: cholecystitis; intestinal obstruction; perforating gastric or duodenal ulcer; suppurative salpingitis; acute pancreatitis; ruptured extra-uterine pregnancy; hematogenous infection of the kidney; perforating gall bladder; infarct of the spleen; twisted pedicle of an ovarian tumor; torsion of a pedunculated fibroid; mesenteric thrombosis; torsion of omentum, etc.

The classical pictures are familiar to us all, but very frequently we have the unusual cases to deal with. I do not believe the typical case of acute appendicitis is often mistaken nowadays. When we have pain, vomiting, tenderness in the appendiceal region, with elevation of temperature, some member of the family has often made the correct diagnosis. Just one word in connection with the typical case of acute appendicitis: do not expect much variation from normal, if any, of the temperature and pulse during the first few hours. In those cases where the appendix is retrocecal and retrocolic it may give rise to symptoms resembling gall bladder, stomach or kidney disease. Abdominal pain is very often perplexing owing to these reflections and radiations. Many cases not seen until a few days after the beginning of the attack present an atypical picture. Adhesions resulting from previous attacks may give rise to a peculiar symptom complex. Appendicitis in young children has a high mortality because of failure of diagnosis; the diagnosis being made difficult because we cannot get the full cooperation of the patient. In children one must rely almost entirely on the temperature, fast pulse, leucocytosis, and especially rigidity; and then, after we have all this, we should go over the chest very carefully to try to rule out a pneumonia. Appendicitis in the aged may give us some surprises, not only because it is relatively rare but also because the symptom of pain and temperature are often not nearly so prominent. The author has recently had two cases in men nearly seventy years of age, both of which developed large abscesses, experienced little pain, had no elevation of temperature at time of operation, gave a history of having had no elevation of temperature at any time during the attack, and one of whom was up and about most of the time prior to operation; both cases had prominent masses, one being in

the lower right quadrant, the other in the upper right quadrant. There are two things which the family physician sometimes still does that not only mask the diagnostic evidence but also lead more than anything else to neglect and delay. I refer to the use of opiates and cathartics. There would be few cases reach the surgeon in the abscess stage if the attending physician did not deceive both himself and his patient by administering cathartics and opiates.

Acute cholecystitis gives rise to vomiting, pain, tenderness. In appendicitis the pain precedes the nausea and vomiting, while in cholecystitis the vomiting usually precedes the pain. A rise in temperature is usually seen in both. In cholecystitis the tenderness is over the gall bladder, and with it there is a catch in the breath while the examiner makes deep pressure over the gall bladder. One foreign writer has said that thousands of cases of appendicitis are overlooked and mislabeled gastritis. I hardly believe such a statement would hold true nowadays in this country, but I do believe thousands of cases of gall bladder disease are mistaken for primary stomach disorders. This is because the early symptoms often point more or less directly to the stomach; also, because many physicians lay too much stress on jaundice. The absence of jaundice should not cause one to eliminate cholecystitis with or without gall stones. The average gall bladder case is slow to fall into the hands of the surgeon.

The most prominent symptom of complete intestinal obstruction is fecal vomiting; this is preceded by gastric and bilious vomitus. In the acute type there is intense paroxysmal pain. There is inability to move bowels and to pass flatus. Uncomplicated, there is normal pulse and temperature. Visible and palpable peristalsis is present only in obstruction. It should be remembered that a strangulated hernia may give all the signs of acute intestinal obstruction; therefore the hernial openings and preoperative scars should be examined. A rectal examination should always be made. Shock and collapse may not be great if the obstruction is low down. In infants the most common cause of obstruction is intussusception; in infants and young children we have to think of Hirschsprung's disease; in older children and young adults peritonitis due to the various causes has to be first thought of; in elderly people we should consider cancer; and in fat women obstruction by gall stones. Because

some feces have been returned with an enema some have been misled into ruling out obstruction; if in doubt on this point wait an hour and give a second enema, it will be retained or return unaltered under no pressure if there is complete obstruction.

Sudden severe epigastric pain with board-like rigidity of the abdomen causes us to think of perforated gastric or duodenal ulcer. The other conditions to be thought of for differentiation are perforated appendix, acute pancreatitis, perforated gall bladder, perforated colon. In the typical case the history of ulcer symptoms will be of great help. The rigidity of the abdomen is usually more marked in the early hours following the perforation of the gastric or duodenal ulcer and the point of greatest tenderness is over the upper part of either the right or left rectus. In perforated appendix the greatest point of tenderness is over the base of appendix. Do not be deceived by a normal pulse following a perforation. It usually remains slow and full until we have the effect of a contaminated peritoneum. In most cases it will be impossible to differentiate perforation of gastric from perforation of duodenal ulcer. If the patient is not seen until several hours after perforation and the history is unsatisfactory, it may be impossible to differentiate any of the perforations because then we do not see evidences of perforation so much as peritonitis, the sequel. Fortunately these conditions are usually recognized as being emergency surgical.

It has been said that "if the history, symptoms, and signs do not fit exactly acute intestinal obstruction, stomach or duodenal perforation, perforating appendix, or acute cholecystitis, and yet have some resemblance to each of them, pancreatitis is the most common cause." (Morrison.) Sudden intensely acute pain in the upper abdomen should always cause one to consider acute pancreatitis. It is not so rare a condition as was formerly supposed. Many cases are overlooked and not operated on; a few of these get well, but most of them die. They should be recognized as immediate operative conditions. This is the picture: a well obese person suddenly struck with acute pain in epigastric region; persistent hiccough and vomiting; cyanosis; fast pulse with poor volume; extreme tenderness in mid epigastric region; and oftentimes a tender mass on deep palpation. Blood examination may

show slight anemia and marked leucocytosis with a relative increase of polymorphonuclear cells.

Extrauterine pregnancy is very rarely recognized in the first stage before rupture. At this time the tube is soft and not easily palpated. The delay of menstruation and the enlargement of the uterus make differentiation from the normal pregnancy very difficult if not impossible. However, at time of rupture, the cases of severe bleeding are very characteristic. The sudden terrific abdominal pain and the tragic collapse of a woman in full health is almost unmistakable.

Inflammatory conditions of the right uterine appendages may simulate acute suppurative appendicitis, but as a rule pelvic symptoms will be found and pain felt in the pelvic region and in the back. The history will often throw some light on the case. Vaginal and rectal examinations are usually helpful. The gastric symptoms and the toxemia are usually not so pronounced in salpingitis as in appendicitis.

The acute conditions due to torsion of pedicles are torsion of the pedicle of an ovarian cyst, uterine fibroid, pedicle of a mobile spleen, and of the great omentum. Sudden torsion announces itself by sudden severe pain which is followed by more or less shock. The succeeding symptoms may point to continuous and serious hemorrhage, intestinal obstruction, or peritonitis, depending, of course, on whether there has been laceration of a blood vessel, bowel compression or infection.

From the intraabdominal lesions we often have to differentiate some of the acute renal conditions. Nausea and vomiting are less common in acute kidney lesions with fever and pain than in intra-abdominal lesions. Fever is usually higher and there are more frequent chills at the onset of the fever in acute kidney conditions. There is usually muscle spasm and tenderness over the seat of inflammatory reaction. The urinalysis often gives us invaluable aid in the differential diagnosis. Of course we may have pus in the urine, complicating a pyosalpinx or a suppurative appendicitis; in any case the source of the pus should be determined by cystoscopic examination, ureteral catheterization, etc. The blood count in acute inflammatory renal lesions shows not only a high white cell count and a relative increase of polymorphs, but also counts that are more uniform.

Among the chronic diseases of the abdomen

the most frequent are chronic appendicitis, cholecystitis, gastric and duodenal ulcer, carcinoma of the stomach, gastroenteroptosis, pancreatitis and intestinal obstruction.

Chronic appendicitis of masked variety is often very difficult to diagnose and sometimes absolutely impossible; it may simulate most of the upper and lower abdominal diseases as well as diseases in the pelvis. The most reliable and perhaps most constant sign is tenderness over the site of the appendix. The temperature and pulse are normal; the leucocyte count is a high normal. A history of having had acute attacks is often suggestive, but in many cases there is no such history. Gastric analysis and x-ray examination of the gastro-intestinal tract are often helpful. Gastric secretions may vary from the normal, but the type of variation is unfortunately not constant. The chronic appendix may give rise to pylorospasm. Chronic indigestion, constipation, and colitis are often the sequels of the chronic appendix. Because of the great variety of sensory, motor and secretory phenomena to which the chronically diseased appendix may give rise the diagnosis should not be made without a most thorough and painstaking study of every case. The removal of many so-called chronic appendices fail to give the relief expected by the patient because he still has his cholecystitis, gastric ulcer, colitis, or other condition. Many surgeons today remove the appendix as routine whenever the abdomen is opened; I think this is the proper procedure, providing the little extra time consumed is not a matter of moment.

The typical chronic duodenal and gastric ulcer gives rise to periodic distress in the epigastric region; pain coming on two to four hours after eating; relieved by eating or the taking of sodium bicarbonate; the pain is often influenced for better or worse by position; gastric analysis showing increased acidity; and positive x-ray findings. Hematemesis occurs in about 50 per cent of both chronic and acute ulcer. The gall bladder may give rise to symptoms which may simulate gastric or duodenal ulcer. In the case of gall stones the pain is usually more severe than in gastric ulcer, comes at longer intervals, and there is comparative freedom between the pains; the pain is not relieved by vomiting; there is shivering or chills with slight rise of temperature. In gall stones or cholecystitis there is tenderness on deep pressure over the gall bladder region—having the

patient breathe, forcing the gall bladder against the finger tips. The opinion is still too prevalent not only among the laity but among some of our profession that the x-ray is of much value in detecting gall stones. By this I would not have anyone believe we should not utilize the x-ray in suspected gall bladder disease, because it occasionally reveals gall stones, very often shows adhesions in the upper abdomen which are most often due to inflammatory conditions of the gall bladder, and assists very materially in making the diagnosis of gastric and duodenal ulcer. Chronic pancreatitis may give rise to epigastric pain, but there are usually other signs of disturbed function of the pancreas, such as fatty diarrhea, or a "pancreatic reaction" in the urine; there may or may not be glycosuria. Chronic pancreatitis is usually secondary to other lesions in the intestinal tract, more especially gall stones.

Gastroptosis may simulate many of the upper abdominal diseases in their chronic stage. It is a very frequent condition; Glenard noted it 400 times in 1,300 patients. In the majority of cases it gives rise to no symptoms. The patients are nearly always tall, thin, and of neurotic temperament. They complain of abdominal distress or pain, flatulency, indigestion, general debility, not infrequently of nausea and vomiting, and occasionally of "heart trouble." It is easily diagnosed by observing the abdominal outline when the patient stands, by filling the stomach with air through the stomach tube and by x-ray examination. There is frequently a general visceroptosis, in which case the displaced kidneys or liver may be palpated. This type of case is often driven to the quacks by either impatience or failure on the part of the physician to recognize that there is nothing to preclude the patient with a visceroptosis from having appendicitis, cholecystitis, or other condition. On the other hand, the removal of the appendix, gall bladder, or a cystic ovary will alone not relieve the severe gastroptosis which has been giving rise to definite symptoms of discomfort.

Any discussion of the chronic abdomen would be incomplete without proper consideration of carcinoma. It is too vast a subject to go into in any detail. Our attention from the standpoint of frequency, and also from opportunities of helping the patient, should be first directed to carcinoma of the stomach. The patient fifty years or past who appears pale, emaciated, weak, com-

plaining of epigastric pain, loss of weight, loss of appetite and vomiting of coffee ground material, and who has a mass in the epigastric region, has, we say, almost instantly—and further investigation rarely causes us to have to change our mind—cancer of the stomach. Our attention is usually directed to them long before this stage, and very often they do not present this symptom complex. Pain is usually present in gastric carcinoma; it comes on early and varies in degree and in position; 10 to 25 per cent of the cases are painless; when pain is present it is usually less severe in type than that in gastric ulcer. Vomiting is another fairly early symptom and varies in character and in frequency; it is present in only about 25 per cent of the cases; is usually small in amount and of coffee ground type. Gastric analysis may show absence of free HCl; the presence of lactic acid; the presence of Opler Boas bacilli and sarcinae—but this test alone cannot be relied upon. The loss of weight and strength are two of our most valuable guides. In 70 per cent of the cases a tumor mass can be felt; in some cases it is the first thing noted. In the very early stages it is often difficult and sometimes impossible to differentiate from ulcer. The x-ray is of value in diagnosis of cancer of the gastro-intestinal tract. We should remember that carcinoma can occur in young adults; that it does not always give rise to a marked anemia or any other marked sign or symptom; for the diagnosis to be of value it should be made early. There is often too great hesitation and delay in doing an exploratory in the questionable cases.

Intestinal obstruction of chronic type is often overlooked because of little or no pain and because of slow onset. The intestine is gradually occluded by new growths, intussusception, volvulus, bands, herniae, etc. Meteorism usually becomes prominent; this is followed by visible peristalsis; persistent vomiting which finally becomes feculent if not relieved, and the cessation of the passage of flatus and feces. Too often the condition is confused for constipation with the result of too active purgation and loss of time before operating.

Thus briefly have we considered some of the most frequent and most important conditions we meet in the acute and chronic surgical abdomen. How are we to lessen our errors in diagnosis? I say lessen because we cannot hope to reach perfection and make no errors so long as the symp-

toms and signs of some of the diseases are so protean in character, two diseases giving rise to almost identical subjective symptoms and objective findings. In the first place we must continue to emphasize the matter of careful and correct history taking. Too often we hurriedly pass from the asking of a few questions to the physical examination. The history of a previous illness is sometimes of as much value as that of the immediate complaint. We should verify in the obscure cases the patient's running story by the proper amount of cross questioning. The dense adhesions we sometimes encounter in the gall bladder and appendiceal regions in patients whom we consider according to their history are having their first attacks often demonstrates we did not obtain a correct history. Secondly, we have the routine physical examination. This, like the history, has long been urged to us and by us. It has seemed to me that the diagnostic laboratory has caused some to neglect to a certain extent the thorough routine physical examination. It is a crime to let a presumably abdominal case go into the operating room without a sufficiently thorough examination of the lungs to rule out a pneumonia, an examination of the nervous system that would rule out a tabetic crisis, a sufficiently thorough examination of the urinary system to locate the source of any pus in the urine. If a rectal examination were included in every case routinely, there would be found earlier and more frequently carcinoma of the rectum, prostatic pathology, etc. If more cystoscopic and other genito-urinary diagnostic measures were done routinely, there would be fewer errors in our abdominal diagnoses. Then we come to the special examinations, such as the x-ray, bacteriological and chemical laboratories. These should be used to the fullest extent in all our questionable abdominal cases, not only as a means of differentiating surgical conditions but also differentiating surgical from medical. There is a tendency on the part of not a few physicians to either underestimate or overestimate the value of some of the laboratory procedures. The results of x-ray findings, blood examinations, etc., have in most cases to be carefully weighed and interpreted in conjunction with the history and physical findings. Just as we should not lay too much stress on any one symptom so should we not lay too much importance upon x-ray examination, a blood count, a positive Wassermann, a gastric analysis.

In conclusion, in the acute abdomen get your case quickly, make a sufficiently thorough investigation to permit of a definite diagnosis. Do not procrastinate on your acute abdominal cases; loss of time means loss of life. In the chronic abdominal cases we should use every practical diagnostic means at our command, weighing all the evidence obtainable from every angle before venturing on our operative treatment. We should not permit the patient or the family physician to rush us into the chronic abdomen.

DISCUSSION

DR. FREDERICK G. DYAS, Chicago: The paper has been so comprehensive that it is difficult to pick out any one point for discussion. I think he has covered an enormous field of surgery in a short space of time. The tendency toward getting machine-made diagnosis is becoming greater all the time and the amount of curriculum hours devoted to laboratory work in the medical colleges now is so great that the students come to rely upon these methods to the exclusion of the common time-honored clinical methods. I might say this, that rather than go over the points of Dr. McReynolds' paper which is so comprehensive, I would merely like to impress on clinicians who are present the fact that in most cases so far as the acute abdomen is concerned it is practically always possible for the attending medical man to make a diagnosis, at least to this extent, that the time has arrived for him to open the abdomen. It is not necessary for him to make a precise anatomic diagnosis before hand, but a man of judgment and experience in almost all cases is sufficiently supplied with information when he has gone over the history and examined the patient to know whether or not to open the abdomen. He is in most cases equipped to take care of whatever conditions he will find when he opens the abdomen. It seems to me the great danger lies in men of little or no experience doing major surgery. You hear men saying all the time, as I did yesterday, that they are terribly disappointed on sending cases to a surgeon to find that he could not handle the case or that he closed the abdomen without doing anything for the patient.

DR. DON DEAL, Springfield: The paper was most interesting, but I am desirous of adding two points:

1. We must remember that in pulmonary tuberculosis practically 100 per cent of these cases have abdominal symptoms at some time during the course and this is one of our common errors in making a diagnosis of abdominal conditions.

2. I wish to emphasize the importance of diagnosing ptosis cases in differentiating from other abdominal conditions since these symptoms are commonly confused with chronic appendicitis, gall bladder, kidneys, etc. After visiting Dr. Hazen I have become enthusiastic on this subject of ptosis. Dr. Hazen has pointed out some very definite symptoms

which differentiate cases of ptosis producing symptoms from ptosis without symptoms, which we so frequently see. We have operated on several cases after Dr. Hazen's method with entire satisfaction. It will be remembered that these symptom cases have an increase of all symptoms upon exertion and increased pain upon riding or stretching. They frequently have nausea and vomiting and practically all have constipation. In addition cases producing symptoms are much lower in the standing posture than in the reclining. This does not seem to be true with cases which do not produce symptoms. I want to again emphasize the splendid work of Dr. Hazen in working out this class of cases.

DR. RALPH McREYNOLDS, Quincy, Illinois: I have nothing further to add except to thank the men who discussed the paper. In the acute cases time is the essential thing.

The point brought out by Dr. Deal about tuberculosis is an excellent one and one I should have mentioned in the paper.

MEDICINE AND THE PUBLIC PRESS*

THOMAS G. ATKINSON, M.D.

CHICAGO

The title assigned me in the program ("The Necessity for Educating the Public") is a little misleading. Regarding the *necessity* for enlightening the public as to the aims and the achievements of medical science and the medical profession, there is, I think, no serious difference of opinion. What I wish particularly to speak about is the *means* to be employed in carrying out such a campaign of enlightenment. And what I have to say can be very quickly and shortly and decisively said.

It is quite true, as we have heard it bewailed of late in many quarters, that the public is in a shocking state of ignorance and indifference toward all the wonderful things that are being done, and the remarkable progress that is being made, in the field of medicine. In every other department of the world's work public interest and public understanding are becoming every day more lively and more intelligent. More and more, in fact, the public is being made partner in the truths and achievements of the various branches of scientific and industrial enterprise. Medical science alone leaves the popular mind cold and unsympathetic. Yet here is a veritable romance of fascinating marvel, a human drama of adventure and failure and achievement, beside which the romance and drama of industry

*Address before American Medical Editors' Association, Chicago, Ill., October, 1923.

or finance sink into commonplace; and one, withal, which touches the most vital and intimate relations of every individual life. How does it come that the man in the street, so growingly and intelligently interested in every other phase of the world's work, knows so little, and apparently cares so much less, about this one?

The inescapable answer is that the medical profession is itself chiefly to blame. It has deliberately and consistently shut off all channels of communication between itself and the public. Like the medieval Church, it has made of its bible a closed book, and jealously kept it out of the hands of the people. With dour and paternalistic sparingness it has grudgingly doled out just so much as it deemed the public ought to know, disdainfully implying, if not complacently declaring, that the rest was none of their business, and they couldn't understand it anyway. And this is still, to a large degree, the attitude of medical science toward the public.

I expect to be told that there never was a time when the medical man was so frank with his patient as now; or when the profession promulgated as much information to the public. And that I readily concede. But the trouble with all this propaganda is that, while it has increased in volume, it retains its old character and limitations: it is still the professional patter of the physician to his clients, and it still condescendingly and patronizingly picks and chooses what it thinks the public, for its own good, ought to know. Of free, frank partnership between medicine and the public, as between an agent and his principal, with the latter's full access to, and proprietary interest in, all of the former's acts and deeds, there is none!

As the supreme expression of this foolish attitude, (and its cardinal blunder), medicine has turned its back and shut its doors upon the public press. To every other department of human endeavor the public press has free access, and every facility is accorded it for keeping the people in touch with what is going on. Representatives of the public press are given a welcome place at all of their deliberations, and the run of all their centres of activity, with a free pen to report upon them to the world at large, restricted only by certain considerations of ethics and decency which the press honorably observes. To the President of the United States, no less than to the obscurest ward heeler; to the Supreme Court, as to the

humblest police bench; the newspaper reporter has unhindered access. Mr. Edison chats with him of his inventions, past, present and future; Mr. Ford discusses with him his industrial plans; Mr. Morgan explains to him the problems of high finance. Medicine alone denies him a place at its councils and an account of its doings. What he manages to pick up he must snatch irregularly, or indirectly, and then be upbraided for publishing inaccurate, misleading statements.

Small wonder that the public misunderstands the medical profession, and underrates its aims and its work, while the healing cults and the sectarian practitioners, who have no such medieval traditions, strut in the public limelight and bask in the popular favor.

It is not only time, but high time, that the public should be made familiar with what the science of medicine has done, and is doing, for humanity. The problem is, to be sure, a very large and difficult one, for which nobody can hope to furnish a cut-and-dried formula. Indeed, it can never be solved by the initiative or ingenuity of one individual, but is a cooperative problem, calling for the thought and experience of all who have experience in such matters, professional men and laity. It is a part of the nature of the problem that it can never be solved inside of the profession. The laity must take a part in it from the beginning.

The only organization capable of handling such a publicity campaign is the public press; and unless the material can be so presented as to appeal to human interest, on its own merit, without the intervention of space rates, agencies, etc., it will not make the impression upon the public that it is expected to make. If the romance and achievements of medicine make an interesting human story (as I believe they do) the lay press will "eat 'em up" without any other inducement than their own appeal; and the best men to write up such stories are the newspaper men themselves, who know more in five minutes about the best methods of giving them publicity than any organization does in a thousand years. If, on the other hand, what medicine proposes to do is to put across mere propaganda, designed to "sell" the medical profession to the public, then they might as well save their time and effort.

The thing to do is to enlighten the people in the true aims and achievements of medicine as

an arm of human service and industry; in other words, to give the medical profession and its work a human "slant." And in this movement, the first, basic step, without which all other measures will be futile and fruitless, is to establish a working liaison with the lay press. They, and they alone, in the last resort, have the key to the secret and method of real publicity. We must open the doors and admit the public press. They must be given a place at our conferences and our congresses, and precisely the same free, frank access to information and "news" in the medical profession that they are accorded in all other departments of human industry and activity.

Two obsessions of the professional mind stand in the way of this step. The first is that the public is incapable of grasping and evaluating the doings of medicine; the second, that the lay press bungle and distort and misrepresent them. Both obsessions are gratuitous and unwarranted. The public is always capable of understanding and evaluating that which concerns it, if they be given free access to it through normal channels. As for the lay press, these men are just as anxious to get things right as any scientist is; they are wonderfully quick and adaptive, and easily acquire the atmosphere of their subject; they are fair and honorable, and will reciprocate the attitude taken toward them by medical organizations. We have only to let down the bars and admit them frankly to our confidence, and they will speedily develop a specialized corps of reporters and writers who will make report of our doings as faithfully and accurately as they now do for the financial and sporting worlds.

Having insisted upon this initial step as the first *sine qua non* of the campaign, it would hardly be fitting to offer any specific suggestion of detailed procedure. "Whatsoever he saith unto you, do it." More wise and helpful advice can be gleaned from a shrewd newspaper man, or popular magazine manager, in an hour than any mere medical editor could evolve in a year. The very mention of these men, however, suggests the channels through which the crusade must be carried out, if it is to be broadly effective, viz., the newspapers and magazines of the country. And it must be put across, not in the advertising pages, nor as paid propaganda, nor in the shape of paternalistic instruction, but as genuine "news" and "stories." How that is to be brought

about the public press itself must tell. And its advice must be the court of last resort. Unless medicine is prepared to give itself, freely and unreservedly, into the hands of the public press, it might as well relinquish any thought of enlightening and interesting the public.

CHAPARRO AMARGOSA IN THE TREATMENT OF AMEBIC DYSENTERY*

A. A. GOLDSMITH, M.D.

and

E. I. GREENE, M.D.

CHICAGO

In this short presentation the purpose is not to give *inextenso* the therapeutics of this disease. To go into the treatment of amebic dysentery in which ipecac and its alkaloid, emetine, are so well established, would be to waste your time. The treatment I wish to lay before you, is not original with me. The drug used is called "Chaparro Amargosa." I wish to state in the beginning that most of the facts to be presented to you have been obtained from the writings of P. I. Nixon of San Antonio, Texas.

The words chaparro amargosa means "bitter bush." Anyone who has tasted the preparations from this shrub will verify the fact that this is a very appropriate name. The classification botanically has been given as *Castela Nicholsoni* Hook and is supposed to belong to the family *Simarubaceae* and this is the same family of which quassia and simaruba are members. The following is from Nixon's article describing the shrub, "Chaparro Amargosa is a small thorny bush which is indigenous to Southwest Texas and Northern Mexico, growing on thin, rocky mesquite or post-oak land and having an especial tendency to be found on small, rocky hills. It grows to be a bush two or three feet in height, its size depending on the comparative richness of the soil on which it is found. Its leaves are small and lanceolate, its flowers pink and very small. The matured fruits is a red berry about the size of a pea. All parts of the plant, from the root to the berry, possess the characteristic bitter taste and medicinal properties."

The drug is said to be on the market in the form of a fluid extract, but there seems to be considerable difficulty in obtaining this drug in the North. Nixon states that his experience has

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been chiefly with infusions made by boiling all the parts of the plant, and I have followed his example.

Before taking up the treatment, it might be well first of all to refer to the etiological factor of the disease as shown by Schaudinn. There are at least two species of amebae found in the stool of man, one pathogenic called "*Entameba histolytica*" and the other non-pathogenic called "*Entameba coli*." The pathogenic organism measures between 20 and 30 microns in diameter and has a hyaline ectoplasm surrounding a granular endoplasm. The nucleus is usually eccentric in location and not easily distinguished in the living organism. The non-pathogenic ameba has a diameter of about 16 to 26 microns. The differentiation between the ectoplasm and endoplasm in this variety can be seen only during the movement of the organism. The nucleus is well outlined and easily distinguished.

The writer must candidly admit that he does not feel able in all cases to distinguish with certainty these two varieties of amebae. Undoubtedly those who work in the tropics and therefore see many examples of this disease can readily distinguish one from the other.

It would seem in a practical way, that if we are dealing with a case of ulcerative colitis and that if we find motile amebae in the dejecta and if these amebae contain red blood cells, we have a reasonable right to assume that these organism are really pathogenic and are concerned in the production of the disease under observation.

I wish it fully understood that the writer does not believe that this drug should supplant ipecac and its alkaloid. There are several reasons for this. Chaparro amargosa does not offer 100 per cent cures. The infusion has an extremely bitter taste and must be taken as will be mentioned later in large doses. Therefore it would seem more pleasant to the patient to receive injections hyperdermatically of emetine and to take by mouth alcrestia ipecac, providing these preparations effect a cure. However, there are certain cases which are rebellious to this treatment and I would suggest that in these cases the treatment under consideration be given a trial. It might be advisable in a particularly severe case to use both methods of treatment at the same time, although I have never done this.

In a general way I have followed the treat-

ment suggested by Nixon, which I will give you in quotation.

The patient is kept in bed if practicable; the diet is restricted to liquid and semi-liquid articles; an ounce of magnesium sulphate is given three or four hours before treatment is begun and repeated every three or four days; six or eight ounces of the infusion are given by mouth one-half hour before each meal; rectal enemata of 500 to 2,000 cc. of the infusion are given in the knee-chest posture twice daily and the patient is instructed to maintain this position for at least five or ten minutes and afterwards to retain the solution as long as possible. The length of time the fluid will be retained varies with the irritability of the rectum and the persistence of the patient; in some it will be only a few minutes while others will be able to retain it indefinitely. If the large bowel contains fecal matter it is well to irrigate it with normal saline preliminary to giving the enemata. It is advisable to continue the treatment for a week or two after the subsidence of all symptoms.

As mentioned above, the infusion is extremely bitter. However, it is not unpleasant and does not produce nausea. The patients offer very little complaint. In fact, being a bitter tonic, it seems to increase the appetite.

In making the infusion, the entire plant, roots, leaves, branches and berries are boiled from 30 to 60 minutes. No definite amount of drug for any given amount of water can be mentioned because the weight of the plant varies, depending upon its dryness. The color of the infusion should be about that of moderately weak tea.

Patients vary a great deal in regard to the amount of infusion they can hold per rectum. It would seem advisable in case the patient is intolerant, to give a smaller amount of the infusion, in order to have it retained for a reasonable time, rather than give a larger amount and have it expelled immediately.

The active principle of the drug has not been determined as far as I know. Some workers have thought that the tannin in the drug should be given credit for the anti-dysenteric properties. This does not seem to be true. Nixon had a de-tannated fluid extract prepared and this he states was just as bitter and just as potent as the original fluid extract.

Now a few words in regard to the amebicidal properties of chaparro amargosa. In pus from a large liver abscess, evacuated by Dr. Frank Paschal, San Antonio, Texas, numerous, very active *entameba histolytica* were found. These parasites were kept alive at room temperature for several hours and some were still moving

after 24 hours time. The 1 to 10,000 dilution of the de-tanned fluid extract of the drug at body temperature cause all parasites to stop moving instantly; 1 to 100,000 dilution required 40 seconds to accomplish the same end and 1 to 1,000,000 two minutes. With a dilution of 1 to 10,000,000 only one sluggishly motile organism was found after six minutes and this one soon ceased all motility. Wherry found emetine to be amebicidal in 24 hours with the dilution of 1 to 20,000 to 1 to 200,000.

Chaparro amargosa seems to be specific for *Entameba histolytica*, as *Entameba coli* were found to be about ten times as resistant to the drug as the pathogenic variety. It is very unfortunate that we are not able to procure the active principle of the drug to be used hypodermatically.

It has no effect on other intestinal parasites and also is not at all efficacious in other forms of dysentery.

I will not impose on your good nature by giving case reports. The reports furnished by Nixon seem to be almost miraculous. However, in a recent personal communication, it is admitted that a few of these cases may have had relapses.

In the writer's experience, in no case in which we have used the drug in a true case of amebic dysentery for the first time have we failed to observe almost immediate results. One patient in the County Hospital in Chicago, who had been under prolonged treatment in the Government Hospital and who had received numerous injections of emetine, on the day after starting the treatment, the stools dropped from 30 in number in 24 hours to 1 in 24 hours. The amebae disappeared from the stools as did also the blood and pus. However, after 3 or 4 months of what seemed to be a complete cure, he suffered a relapse, and this time the drug seemed to have no effect. This relapse was not due merely to secondary infection as amebae were again recovered from the stools.

It might be well to consider at this point the part that secondary infections play in amebic dysentery. It is very possible that any drug that we use may kill off all the amebae and yet the secondary infection may cause the process to go on as a non-specific ulcerative colitis. This is somewhat analogous to what occurs in pulmonary tuberculosis where the process started by the tubercle bacillus, becomes secondarily in-

fectured, and this secondary infection then dominates the picture.

It would seem in a general way that any drug used to combat an animal parasite, if it is at all efficacious, will probably have an immediate effect.

It is very probable that the encysted form of the ameba is much more resistant to the treatment than the motile form. Therefore after administering the treatment for perhaps two or three weeks it would seem advisable to give perhaps a treatment throughout one day of each week for a protracted period. In this way it may be possible to annihilate those amebae from time to time which are assuming the motile state.

In closing I wish to state that my reason for presenting this to you is that we have in chaparro amargosa a drug of definite value and the fact that for some reason seems to be very little known to the medical profession, or at least with that part of it with which I have come in contact. Most of my knowledge of this shrub has been taken from an article from P. I. Nixon in the *American Journal of Tropical Diseases and Preventive Medicine*, which article is found as No. 1 in the appended Bibliography and the remainder of the references are taken from the Bibliography of the article just mentioned.

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DISCUSSION

DR. FRANK SMITHIES, Chicago: I think Dr. Goldsmith has favored this organization very much by bringing to its attention the fact that in the north-

ern section of this country we may come across instances of amebic infection. This has particularly been the case since the World War, inasmuch as we now have so many soldiers from the southern part of this country, the Philippines and the Canal Zone.

Certainly every instance of chronic diarrhea, particularly chronic, recurrent diarrhea, should be investigated with the idea of discovering protozoa in the stools. We should carefully examine many samples of stools. One does not need an expensive "hot stage." Just an old-time carbon-filament lamp suffices, if it be carried under the stage when the Abbe condenser is swung out. I have used it for the past 20 years in that way.

These stools must be collected from the terminal ileum, and not necessarily from the colon, from which place the old text books state we should get the specimen and examine for ameba. They were quite right as far as they went. One can get ameba from the rectum. But it should be emphasized that early in the infection, the organisms lie in the terminal ileum; when the colon is infected and ameba can be secured from rectal mucus, then one has to deal with an extensive and well advanced stage of disease.

In the past two weeks we had an instance, of violent type, where the stools had been repeatedly called "negative," because the patient had been given castor-oil to bring the stool down. One cannot expect to differentiate protozoa, much less genus of ameba after castor-oil. To properly collect stools, requires a saline cathartic and rapid stool examination. Unless one send stools in a thermos pot, one cannot secure reliable returns from a commercial laboratory. The stools have to be examined fresh and warm in order to differentiate the peculiar cellular construction and the motion of ameba. And many specimens must be studied, using high power lenses.

Therapeutically, it is not a question of giving remedies by mouth or rectum exclusively. I had a Mexican assistant for a number of years, who was well acquainted with chaparra amarosa, as used by the natives. Its use has been commented upon in the Canal Zone Reports. If one employs any remedy which is given only by mouth (such as ipecac), or any injection into the rectum alone, one brings about only a temporary cessation of infestation.

The reason why this recurs so frequently, is because the active ameba or their cysts bury themselves in the folds of the mucous membrane of the gut, or they penetrate, as has been shown by pathological sections, into the edges of small ulcers. They later emerge into the bowel lumen and we have what is known as a "secondary infection."

We have shown that they may pass as high up as the gall-bladder. We have secured viable ameba from the surgically opened gall bladder. One can readily see why it is that any remedy given solely by mouth or into the rectum, as has been mentioned, is not sufficient. Something has to attack the ameba or their cysts from the systematic side through the blood stream. Therein lies the efficacy of emetine. Unless at the same time that one uses chaparra

amarosa or ipecac, he employ emetine intravenously or intramuscularly he will get recurrences.

About eleven years ago we began to use salvarsan in the fashion that emetin is now employed. Now, it is a regular procedure to give it every third day. It counteracts the anemia and at the same time attacks protozoa in the gut walls. This treatment is used for a month several times a year. Even though the patient feels well and gets heavier, he should come back regularly for re-observation. It is certainly two or three years before one can say that he is cured. Even then he may go for years without diarrhea, yet still harbor parasites.

I had operated on a patient from New Orleans who had had "amebic dysentery" seventeen years previously. On opening the gall-bladder, we secured thick, pussy material in which, when I made an examination, I found it was filled with viable amebae. This shows how long they can lurk in quiet places in or adjacent to the alimentary tract.

DR. A. A. GOLDSMITH (Closing): I omitted the fact that this drug has no effect upon other animal parasites, the other parasites that invade the intestinal tract.

I want to say in regard to obtaining material that in working with Cohnheim in Berlin some years ago, he devised an instrument made of glass for removing the stool. It is merely a glass tube with a blind end. It is a very convenient thing for obtaining fresh stools. They must be fresh. I never allow the stool to pass into the bed-pan. I either get it by this method or by the ordinary colon-tube. I have never used any warm stage, even the one Dr. Smithies mentioned. In an ordinary warm room they remain alive a long time.

In this disease which is rather intractable it is well to use combined methods. After all, we are after a cure and we have these two drugs known to be amebicidal. Maybe the combination is better than one alone.

VARIX, WITH AND WITHOUT ULCER, OF THE LEG: THE AMBULATORY TREATMENT.*

F. C. SCHURMEIER, M.Sc., M.D., F.A.C.S.

ELGIN, ILL.

History. Varicose veins and varicose ulcers have been recognized as far back as history goes. Hippocrates in his writings several centuries before the Christian Era, spoke of the condition and its treatment. It is interesting to note that at this remote time varicose veins were treated surgically, such as it was. The principals of varix as expounded by the Father of Medicine are adhered to more or less, even to this day. He makes the significant observation, that when a

*Read before the Elgin Academy of Medicine, April 26, 1923, and before the Kane County Medical Society, illustrated by lantern slides, May 23, 1923.

swollen vein is incised, a sore develops from the "influx of bad blood." No doubt, ulcers were in this wise produced. Hippocrates advised, also, the elevation and bandaging in the treatment of varicose veins. It seems at that time there was superstition about varicose veins. Up to the present, this superstition has not been lived down. There is, moreover, still existing, a false notion that an ulcer of the leg must not be healed, and that if the ulcer is healed poor health results.

Anatomy. In order to understand better the mechanics of our subject, it may be well to restate briefly, the anatomy of the venous system of the lower limb.

Deep set: The femoral is a single trunk running in the same course with the artery of the same name, and is encased in the same sheath with it. It has, in 80 per cent of cases, one to five pairs of valves, situated in the upper five centimeters of the vein, and controls the return flow of blood in the lower limb.

The deep popliteal has one to four, the posterior tibial has eight to twenty, and the deep anterior tibial has an average of eleven valves.

Superficial set: The short saphenous has nine to ten valves. The long or internal saphenous has twelve to eighteen valves, some of which in elderly people are insufficient. The long saphenous nerve runs practically in the same course with it.

There are anastomosing branches between the superficial and deep sets of veins in the leg and thigh.

Etiology. Insufficiency of valves; continuous and strenuous work; phlebitis destroying the valvular mechanism; mechanical obstruction to the return flow of blood; obstruction of the deep veins; pressure by abdominal tumors and the gravid uterus in women; constitutional diseases which weaken the vascular system; congenital valve defects, constitute the principal causes.

Traumatism plays an important part in the etiology of varicose ulcer. Sixty per cent. of my ulcer cases gave distinct history of injury, and this is probably the reason for the more frequent incidence of ulcer in the male. Malnutrition of the skin adds considerably to the etiology. Ulcers resulting from syphilis and tuberculosis may coexist with varix.

Pathology. The tunica media is mostly involved. The muscle fibers disappearing, the tunica intima, little effected, may be lobulated

and press through on to the outer coat. The tunica adventitia becomes thickened so that the vein, when opened, does not collapse. The skin overlying the enlarged veins becomes thin, poorly nourished and, therefore, more vulnerable. The back pressure of the blood interferes with the arterial circulation, manifest in some cases by a network of a red plexus, particularly noticeable over the instep, and about the malleoli. The picture except in color, is not unlike that of a spider web, and I call it that type. Again, the capillaries under pressure may become elevated in spots, producing puncta, with pale bluish or whitish areas between, giving a salt and pepper effect in appearance. When there is considerable bronzing it usually indicates that a condition of circulatory disturbance and malnutrition has existed for a long time.

When ulcer supervenes there is usually an hyperemic area surrounding it.

When the tunica adventitia gives way, hemorrhage may be so severe as to exanguinate the patient. In one case in this series, hemorrhage was so severe that it required the patient to be kept in bed several weeks to restore her to health.

I was unable, in this series, to associate the incidence of ulcer with phleboliths in a causal relation. In no case could I palpate stones in the lower third of the leg. When present they were located most frequently in the upper third of the leg and in the lower third of the thigh. Only a few presented stones in the middle third of the leg.

Diagnosis. The diagnosis of varicose veins is very simple. When ulcer is present, its possible syphilitic nature must be borne in mind. A negative Wassermann reaction is not conclusive that lues is not present. Where there is doubt as to syphilitic infection, anti-luetic treatment is of value in the diagnosis. The coincidence of a sore with varix is not conclusive that it is a simple ulcer.

Tuberculous ulcer calls for a history of tuberculosis, and is recognized by the soft edematous granulations and a thin undermined edge.

The luetic ulcer has a dirty sloughing deep base, and has the appearance as if punched out, with thin red edges, and located in the upper third of the leg.

A simple varicose ulcer has thickened undermined irregular edges.

When the edges are hard, nodular, elevated

and everted, together with cachexia and metastasis, we have the picture of an epitheliomatous ulcer.

Location of the ulcer. In my series of cases in which ulcer was present 12.5 per cent. were situated on the outer aspect of the leg, and of these all but one (luetic) were located on the lower third of the leg.

The syphilitic ulcer was found on the upper third of the leg.

Of the ulcers 87.5 per cent. were found on the inner aspect of the lower third of the leg.

Frequency. Further analysis of these 56 cases discloses some more interesting facts:

Varicose veins occurred 18 times in the male and 38 times in the female.

Thus varix occurred more than twice as often in the female as it did in the male.

Ulcer complicated 16 cases of which 11 were in the male and 5 in the female.

Ulcer occurred more than twice as often in the male as it did in the female.

Varicose veins involved both legs in 29 cases.

There were 27 cases with one leg only involved.

Ulcer was present in both legs in 9 patients, one of which was tuberculous.

Ulcer was present in one leg only in 7 cases, one of which was luetic.

Age. The youngest patient was 20, a female, and the oldest a male of 72. The average age at which varicose veins occurred was 49.6 years. The average age at which ulcer occurred was 61 years. In this series I found ulcer once in a male 72. There were no ulcers under the age of 44.

Treatment. I have treated 56 consecutive cases by the following method:

Unna's paste is heated on a water bath.

It is most desirable to apply the cast in the morning before the patient arises. The continuous horizontal position and the rest is conducive to the best condition for treatment, and elevation and depletion by careful effluage is not necessary. When the patient comes to the office for treatment, the limb must be elevated or the position of the patient such as to cause the superficial veins to empty themselves. The careful systematic massage hastens the process of depletion. When the limb is very hairy it may be shaved dry, however, there is no particular objection to the use of soap. The limb is next rubbed with alcohol or witch-hazel. The leg is now ready for the cast.

With a small paint brush a coating of the paste is applied to the naked skin. There is no danger of blistering the skin if a little care is taken. This first coat is one of the essential features of the technique. It is very essential to the proper fitting of the first layer of gauze, which is put on in one piece. The paste allows the operator to carefully fit the gauze to the limb with the proper tension. I am convinced that much of the comfort to the patient, and the success of the treatment depends on carrying out, minutely, this technique. This first layer is the gauge as to tension of subsequent layers, which must not exceed that of the first layer. Over this first layer another coat of paste is applied and is followed by two-inch roller bandage carefully applied so that there is no turning but cut in such a way that the surface remains perfectly smooth and even. Over this layer another coat of paste is applied. By adding a coat of paste on each layer one insures against cast blisters, that is, weak spots in the cast, and makes the laying on of each layer in a proper manner much easier. It is at this time that the weight and strength of the cast must be determined as indicated by the requirements of the case. As many layers alternating with paste may be applied as may be desired. At last a single piece of gauze is applied exactly as the first layer. A cuff of one or more layers of bandage is placed at the upper end of the cast, and if the cast reaches only to ankle a cuff is placed there also. It is sometimes desirable and even necessary to incorporate the foot, the toes and heel excepted.

We now have a perfectly molded cast, flexible, yet inelastic, without a seam, absolutely smooth and even. It requires some skill, however easily acquired. With a little practice the operator can master the simple technique and produce a well-fitting, non-wrinkling, homogeneous cast.

The cast will feel remarkably comfortable, and this result must be attained. Occasionally the limb will feel queer and slightly uncomfortable during the first twenty-four hours, due to the changed condition of the circulation. The psychology of it all is that, the patient feeling comfortable, it tremendously strengthens his confidence in the treatment.

Ulcer. When ulcer is present the location is noted before the cast is applied. The ulcer is covered with the paste just as if it did not exist. Within twenty-four hours, or as soon as the secre-

tions show through the cast, a window is cut out and the ulcer exposed. The cast absorbs the secretions to a limited extent. If the secretions are excessive or the ulcer is tardy in healing, the sore may be exposed to the ultra violet ray each time before dressing and thus hasten recovery. Weak solution of silver nitrate is sometimes useful to stimulate the wound. In only a few cases did I find it necessary to trim out the ulcer by cutting or the actual cautery. Moreover, any suitable dressing may be applied to the ulcer without disturbing the cast.

If the ulcer is tuberculous or luetic, special treatment is supplemented, but these types point to no contraindication for the treatment outlined.

In this series, the ulcer healed completely in two weeks, the shortest, to nine weeks the longest time. The size as well as the type of ulcer determines somewhat the length of time required for complete recovery.

The age of the ulcers, in this series, ranged from one month to three years.

Because the cases are more or less similar in every detail, I do not wish to tire you with the reading of all the case records.

I will, therefore, present the records of a few of the earliest cases. These cases are in every respect quite similar to all the rest, but have the added interest of permanency of cure over a long period of time.

CASE REPORTS

Case 1. Mr. M. S., male, Swede, aged 56 years, a carpenter, no syphilitic or tubercular history, ulcer over 3 years old, much discomfort, resulting from varix over a period of ten years. Unna's paste cast was applied in October, 1903. Ulcer completely healed in 7 weeks, although the ulcer measured approximately 5 cm by 4.5 cm. Patient, a hard worker, is at present, barring the natural infirmities of old age, perfectly well with no recurrence of the varicose condition. A period of nearly 20 years.

Case 2. Mrs. G., a widow, aged 48 years, several children, varicose veins of both legs of many years' standing, much pain, and impaired function. Unna's paste cast applied in spring of 1904; cast renewed three months later, and wore same 4 months. Complete cure, no recurrence up to this time, about 19 years.

Case 3. Mrs. Y., married, no children, aged 48 years, both legs involved. Cast applied in June, 1905, repeated in 8 weeks, which cast she wore 3 months. Complete recovery. No recurrence up to 1912, 7 years later, when she moved away and has not been heard from since.

SUMMARY

Cases of varicose veins treated.....	56
Cases occurring in the female.....	38
Cases occurring in the male.....	18
Varicose veins occurring in both legs.....	29
Varicose veins occurring in one leg.....	27
Youngest patient, age.....	20
Oldest patient, age.....	72
Average age	49.6
Varicose veins complicated by ulcer.....	16
Ulcer occurred in the male.....	11
Ulcer occurred in the female.....	5
Average age of ulcer incidence.....	61
No ulcer in patient, age under.....	44
Both legs in 9 and one leg in.....	7
Lower third of leg in.....	99%
Middle third of leg in.....	1%
Outer aspect of lower third in.....	12.5%
Inner aspect of lower third in.....	87.5%

CONCLUSIONS.

This method is not new in principal. Unna's paste has been used for many years in the treatment of varicose veins and ulcer. It is likewise true that its disrepute, if there be any, is due solely to lack of a well-studied method and its persistent application. If the cast is applied carelessly disappointment must follow. If the surgeon performs the simplest operation in a careless fashion he is bound to fail.

If there is any originality in this neglected method of treatment, it is in a special technique which I have carefully and painstakingly studied and employed for a period of over twenty years. Moreover, I do not advocate that this method should supersede any of the accepted surgical procedures, but I am convinced that many people afflicted with varix of the leg will submit to this treatment, and who would rather worry along with ill-fitting stockings and bandages and ointments, than submit to the ordeal of an operation.

The advantages of the treatment outlined are self-evident. Twenty minutes after the cast is applied the patient may go about his work.

THE GENERAL PRACTITIONER

The common doctor, who has spent thousands of dollars in his education, is beset on all sides by cultists who are for the most uneducated and untrained men. These cultists actually receive more money for their various drugless treatments than the honest, honorable physician who is trying by methods, which we confess are not always exact, but methods which have stood the acid test of time. A Christian Science healer receives more for a prayer than a physician receives for an intelligent prescription that cures.—*The Medico* (March, 1923).

Society Proceedings

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Regular meeting October 31, 1923. Industrial Surgery. Illustrated by moving pictures and lantern slides. Fred H. Albee, New York, N. Y. Discussion, B. F. Lounsbury, C. W. Hopkins, C. R. G. Forrester.

Regular meeting November 7, 1923. Joint meeting Chicago Medical Society and the Chicago Tuberculosis Society. Tuberculosis Infection, Immunity and Therapy. Gerald Webb, Colorado Springs, Colo. Discussion Survey, James A. Britton; infection, Robt. S. Berghoff; immunity, Henry C. Sweany; therapy, H. J. Achard; resume, John Ritter.

A Symposium on Brain Injuries, November 14, 1923. Brain Injuries of the New-Born, Wm. Sharpe, New York, N. Y.; Brain Injuries of the Adult, Harry Jackson. Discussion—Surgical aspects, E. Wylls Andrews; neurological aspects, L. J. Pollock; obstetrical aspects, J. B. DeLee, Jos. L. Baer.

Regular meeting, November 21, 1923. Organotherapy, Prof. A. Biedl, professor of Experimental Pathology, University of Prague, Czechoslovakia. Discussion, Prof. A. J. Carlson, University of Chicago; Arno B. Luckhardt.

CHICAGO OPHTHALMOLOGIC SOCIETY

Meeting of May 15, 1922—Cont'd.

DISCUSSION

Professor Fuchs thought this was a most extraordinary and interesting case from several points of view. First, as to its nature, whether it was sarcoma or carcinoma. Because of the pigmentation it looked like a sarcoma, while the flat, superficial growth on the cornea resembled a carcinoma. The principal question was whether it might be a pigmented carcinoma, but he is doubtful of the existence of a real melanotic carcinoma. They had often been described, but he had never seen one that he was satisfied should have that diagnosis. In the cystic carcinomas, it was found that they usually started from a nevus on the limbus, being therefore of mesodermic tissue. He did not believe these were actually epitheliomas, but that they were really sarcomas, because when they grew they developed into regular sarcomas, although they looked like carcinomas in the beginning.

Another interesting feature of this case was the scattering of the pigment around the tumor. There was a well circumscribed tumor, but for a distance nearly one centimeter away, the conjunctiva was filled with scattered pigment. He thought these were particles carried away from the main tumor, perhaps through the lymph current, and perhaps by phagocytes. Such cases had been described, and he had seen one, in which after a blow on the eye there was a subconjunctival rupture of the sclera. The iris had become detached all around and had been expressed thru the wound under the conjunctiva. In those cases the pigment of the iris became free by necrosis of the iris and was scattered all over the eyeball, so that the whole white of the eye had become dark. He believed the appearance in this case was due to the same dissemination of pigment by lymph or phagocytes, probably because of the radium therapy. It had become free because of necrosis of the tissue of the tumor.

As to the treatment, he thought the safest plan would be to remove the eye, together with all of the conjunctiva containing pigment. The prognosis was very different from sarcoma and epithelioma. If it was sarcoma there was great danger of metastasis. He knew of several cases in which after removal of a small sarcoma, or melanoma, of the limbus, the patient had succumbed within two years. As the patient did not want

to part with the eye, the best thing would be to make an extirpation of the tumor, cauterize the surface with the galvanocautery and treat it afterward with radium and examine the excised tissue. If it proved to be sarcoma, the eyeball should be removed at once. If it was carcinoma it was not so dangerous, altho there might be local recurrence. He did not know whether there was a history of nevus in this case or not.

(Dr. Wilder said that the patient reported a small pigmented spot on the cornea having existed before.)

Dr. Fuchs said if that was the case the condition spoke in favor of a previous nevus, and it was now probably a melanotic sarcoma. This was much more likely as the patient was not of the carcinoma age.

Dr. Wilder thought that while the pigmented epithelioma were very uncommon, probably every one who had done much pathological work had seen some cases. He recalled one case with a sort of cauliflower growth that developed in the limbus of the eye of a negro. He did not advance the view that the present case was of that nature, but had thought from the beginning that it was a melanotic sarcoma, particularly because of the firm, pigmented growth usually described, but the chronicity of the case made him doubt this. The woman had a very dark complexion and the irides were distinctly dark, which might account for the appearance. He was inclined to think the best measure was enucleation, but the patient had not yet consented.

With all due respect to Professor Fuchs, he would hesitate to make a section for the purpose of diagnosis. He had refrained from this, because in America we had been educated up to the belief that the less one meddled with a suspicious growth for the purpose of a histologic examination, the better for the patient.

NODULAR KERATITIS

Dr. C. O. Schneider presented a case of a young woman, aged 36, with a rare and interesting corneal condition (nodular keratitis), which he had first seen three weeks before. She had been troubled with inflamed eyes as long as she could remember. Her mother told her this started following measles as a small child. One sister, now dead, had a similar trouble in the left eye. She thought the condition was progressing and vision was diminishing. Her vision at this time was R. 20/200 and L. 10/200. When she was first seen there was also one small area on the cornea that was ulcerated and stained with fluorescein, but under treatment this cleared up and did not stain by the following week.

On the cornea of the left eye were six or eight elongated irregular white patches, each approximately two millimeters in length. The surface of these areas was quite rough and they projected distinctly above the surface of the healthy cornea. The right eye also had a similar opaque area, ribbon shaped and extending over half way across the cornea. At presentation none of these areas stained.

A record of the same patient made ten years ago at the Infirmary had been found. The case was then diagnosed as keratitis eumatososa. The vision was R. 20/200; L. 8/200. The description of the lesions was much the same as the present findings, and the fact that the leucomas were elevated was also mentioned. There was then present redness, pain photophobia and lacrimation, which, however, were not marked symptoms at the present time.

Discussion.—Dr. HARRY GRADLE said this case was very reminiscent of a case shown by him some time ago. Dr. Jackson, of Denver, also saw the case. He called it keratitis marginalis vesiculosa. That patient showed much the same condition as this one, but in both eyes. On the cornea, about 1

mm. from the limbus were small vesicles, which were elevated about one-half millimeter. These vesicles were filled with perfectly clear fluid. Upon evacuating the vesicles the corneal epithelium sank back and left an area which was very similar to those in this young woman's eyes. These were in a crescentic form over the entire limbus so that the eye resembled the contour map of the foothills. The slit lamp threw no light on the case and he had found no treatment of value, with the exception of possible thinning of the areas by diathermy. In response to a question from Dr. Fuchs, Dr. Gradle stated that the lesion went deep, below Bowman's membrane, and the vesicle was composed only of epithelial cells.

PROFESSOR FUCHS thought this did not look like vesicle formation, but those who had seen the case, of course, knew more about it. He would have considered the case as related to the keratitis nodosa of Groenouw. In those cases the elevations were not filled with fluid, but were solid. If one of the opacities would be removed for examination he advised putting it first in glacial acetic acid and then stain it according to the Giemsa method. In this way the two substances contained between the corneal lamellae were very well shown.

Dr. Robert H. Buck presented a colored man who stated that about eight months ago he noticed failing vision in his left eye. He had no pain and the eye was only slightly reddened. A white spot appeared in the cornea and this had been growing gradually larger while vision had been failing rapidly. Examination revealed vision of 20/200 in the right and no vision in the left eye. He had marked nystagmus which had been present since childhood. The left cornea showed some opacity and there was an amount of organized exudate in the anterior chamber, adherent to the lens. The iris was degenerated and the lens was opaque. Tension was very low. The condition was suggestive of intraocular tumor or a long continued iridocyclitis. Transillumination was unsuccessful.

Discussion.—PROFESSOR FUCHS said this was a very doubtful case, and he thought it was impossible to tell what it might be. In regard to the transillumination, he had learned in this country that the eye of a really black negro could not be transilluminated.

In reply to a question Professor Fuchs said: That dystrophies were so extremely manifold and some of them so rare, that one man scarcely saw two cases alike, so that it was impossible to class them as a definite disease. It was hard to tell what was typical when one saw only single cases. Many of them were probably related to the keratitis of Groenouw, as the lattice keratitis and others, attacking often several members of the same family. There were other cases in which there was infiltration with fat or lime salts and others in which the cause was unknown. In some cases it was said that the internal secretion was the cause, but there was no definite proof of this. Sometimes after a thyroidectomy opacity of the cornea followed. Similar cases had been observed in myxedema, but these cases were very rare and exceptional. It might be that in these cases some disturbance of internal secretions was the cause, but nothing definitely was known about this.

DR. ROBERT VON DER HEYDT asked Professor Fuchs if he had seen any of the corneal cases Haab had described as buchstabenkeratitis and considered as possibly tuberculous.

PROFESSOR FUCHS replied that he had seen a case, but it was not tuberculous. Some observers considered keratitis nodosa as tuberculous, but this was certainly wrong. He had examined some of the cases histologically and there was no trace of tuberculosis.

ROBERT VON DER HEYDT,
Corresponding Secretary.

An American doctor has discovered a drug that makes people tell the truth. We understand it is illegal to take the stuff within the three-mile limit of any politician.—*Punch* (London).

Book Reviews

DIATHERMY AND ITS APPLICATION TO PNEUMONIA. By Harry Eaton Stewart, M. B. With 45 Illustrations and 15 Charts. New York. Paul B. Hoeber, Inc. 1923. Price, \$3.00.

The author has had two years' experience in the treatment of pneumonia with diathermy in U. S. Marine Hospital, No. 21 (Staten Island), where every case was checked up by the full clinical and laboratory findings of the staff. The results obtained were as startling as they were gratifying.

In the introduction Dr. Stewart acknowledges that the results obtained by some of his co-workers have surpassed his own. This would seem to indicate that the profession in general should duplicate or better the results reported.

The author insists that "hit or miss methods will not obtain good results in this work any more than they will in any other therapy or surgery." He has therefore written an unusually clear, but at the same time condensed, description of the physics, physiological effects and therapeutic indications of both medical and surgical diathermy. Technique is described with unusual clarity.

Particular emphasis is laid on the fact that diathermy properly applied is harmless under all conditions and that it brings almost invariable symptomatic relief. Above all it has apparently lowered the general average mortality. This lessened death rate was particularly evident in a carefully worked out comparison with a group of controls under conditions identical in every respect, except in the use of diathermy.

A large number of detailed case reports giving all the clinical and laboratory findings—the most conclusive evidence that a scientist can offer—are given in this book.

Practically every aide, nurse and physician who has actually seen the treatment properly given has expressed faith in diathermy as a therapeutic adjunct of distinct value in pneumonia.

The book will be profusely illustrated, well printed and well bound.

ALCOHOL AND PROHIBITION IN THEIR RELATION TO CIVILIZATION AND THE ART OF LIVING. By Victor G. Vecki, M. D. Philadelphia and London. Price, \$2.00.

In this work the author has thrown a new light on the prohibition question and has collected an assortment of facts and truths which bid fair to make this book one of the most widely discussed publications which have appeared for some time.

Doctor Vecki has given in his book an unprejudiced, comprehensive and clear exposition of the prohibition question which is today, without doubt, the most vital question with which the country has to deal. The book should prove particularly welcome to the medical profession, many members of which, in their practice, have suffered inconvenience and hardships through the restrictions placed on the sale of alcoholic beverages for medicinal purposes. Beside this, the author has

shown the legitimate use as well as the abuse of alcoholic beverages, the desirability of temperance and the abuses in the interpretation of the enforcement of prohibition. Furthermore, and with the backing of facts, he shows what has been accomplished by prohibition so far, and who has been benefited by the drastic enforcement law. In addition, the standpoint of the medical profession is made clear, a really hygienic manner of living outlined, and the way to the solution of distressing problems indicated.

The first chapter deals with alcoholic beverages in general and from there the author goes on to the discussion of the two sides of the alcohol question. Following this there are chapters on prohibition in relation to the constitution and in relation to personal liberty. Next there is shown what prohibition has so far accomplished in the United States, and who has been benefited by it. Beyond this the interesting question as to whether prohibition can be enforced or not is gone into, followed by an exceedingly important chapter on prohibition as it affects the medical profession. There is next a chapter in which the author points out the possibilities of mitigating and even eliminating certain evils which have arisen through the drastic enforcement of prohibition laws, followed by one dealing with alcohol in relation to longevity. In the concluding chapter, "Kindness Versus Brutality," the author brings out the fact that the keynote of happiness is temperance in all things, and that temperance in prohibition is as equally desirable as temperance in drinking.

CONTENTS

Introduction. Alcoholic Beverages. One Side of Alcohol. The Other Side of Alcohol. Prohibition and Our Constitution. Liberty and Prohibition. What Has Prohibition So Far Accomplished in United States? Who Has Been Benefited by Prohibition So Far? Can Prohibition Be Enforced? The Medical Profession and Prohibition. What Should Be Done. Longevity. Kindness Versus Brutality.

PRACTICAL LOCAL ANAESTHESIA AND ITS SURGICAL TECHNIC. By Robert Emmet Farr, M. D. Illustrated with 219 Engravings and 16 Plates. Philadelphia and New York. Lea & Febiger. 1923. Price, \$8.00.

This book is an expression of the author's views on the subject of local anaesthesia. Its aim is to present to the medical profession the advantages of local anaesthesia for patient and to surgeon and to describe the practical details of methods of administration and of operative technic employed in its use. Every effort has been made to portray the simplest and most efficient means of using local anaesthesia.

TREATMENT OF DIABETES MELLITUS WITH OBSERVATIONS BASED UPON THREE THOUSAND CASES. By Elliott P. Joslin, M. D. Third Edition, Enlarged, Revised and Rewritten. Illustrated. Philadelphia and New York. Lea & Febiger. 1923. Price, \$8.00.

This work deals largely with the use of insulin in the treatment of diabetes.

INTRODUCTION TO THE STUDY OF MENTAL DISORDERS. By Francis M. Barnes, Jr., M. D. Second Edition. St. Louis. C. V. Mosby Company. 1923. Price, \$3.75.

In this additional space has been given to the subject of mental hygiene and social psychiatry, the mental factor in industry and vocational guidance. Several chapters have been revised and considerably amplified, other entirely new ones have been added and more extended consideration of certain types of mental diseases given.

EFFINGHAM COUNTY

Annual meeting, November 13, 1923. "Welcome," Mayor H. B. Wernsing.

1. "A Few Lights on Goiter," Dr. J. R. Young, Terre Haute.

2. "Cause and Care of Corneal Ulcers," Dr. E. E. Edmonson, Mt. Vernon.

3. "Artificial Feeding of Infants," Dr. L. O. Frech, Decatur.

4. "Legislative Matters," Dr. J. R. Neil, Springfield.

5. "Head Injuries," Dr. H. C. Mitchell, Carbondale. Discussion, Dr. Geo. Webber, Olney.

6. "Differential Signs of Endocrine Diseases," (with lantern), Dr. J. L. Tierney, St. Louis, Mo. Discussion, Dr. T. O. Freeman, Mattoon.

7. "Public Health," Dr. I. D. Rawlings, Springfield.

8. "Diagnosis and Treatment in Mental and Nervous Diseases," Dr. Chas. F. Read, Chicago.

9. "Recent Developments in Technique in Major Chest Surgery," Dr. Don Deal, Springfield.

10. "Insulin in the Management of Diabetes Mellitus," (with lantern), Dr. J. A. MacDonald, Indianapolis, Ind.

Marriages

Bransford Louis Adelsberger, Peoria, Ill., to Miss Helen Scribner White of St. Louis, November 5.

Charles L. Garris, Dowell, Ill., to Miss M. Agnes Lawlor of St. Louis, at St. Joseph, Mo., recently.

Franklin Chambers McLean, Chicago, to Dr. Helen Vincent of Boston, at Peking, China, recently.

Karl B. Rieger, Apple River, Ill., to Miss Lillian B. Hall of Chicago, October 6.

Personals

Dr. Perry V. Hartman, Granville, has been appointed county coroner to succeed Dr. Henry M. Wilson.

Dr. Robert H. Greaves has been named city health officer of Collinsville to fill the vacancy caused by the death of Dr. Lay G. Burroughs.

Dr. Amos A. Crooks, Peoria, has been appointed director of health and hygiene in the city public schools to succeed Dr. James M. Furstman, who accepted a similar position in Los Angeles.

Mr. E. S. Gilmore, superintendent of Wesley Memorial Hospital, was re-elected president of the American Hospital Association at the annual meeting in Milwaukee, October 29-November 2.

The colleagues and friends of Dr. John Ridlon, Chicago, presented him, on November 24, with a portrait of himself painted by Carl Bohnen, following a banquet to Dr. Ridlon on that evening.

At a meeting of the Chicago Laryngological and Otological Society, November 5, Dr. Arthur L. Tatum, professor of pharmacology and physiology, University of Chicago, spoke on "Reflex Vasomotor Changes in the Nasal Mucous Membrane."

Dr. and Mrs. Abraham Seletz have returned to Chicago from a year and a half in Europe, where Dr. Seletz devoted his time to diseases of the eye, ear, nose and throat.

News Notes

—Dr. Harry C. Worthington, medical director of the Hillcrest Sanatorium, Quincy, since its establishment, has resigned.

—Bids were taken November 1 for the construction of a \$75,000 home for soldiers' widows at Maywood.

—Construction work on the \$100,000 addition to St. Margaret's Hospital, Spring Valley, is nearing completion.

—Construction work will soon be started on a \$70,000 addition to the Silver Cross Hospital, Joliet.

—According to reports, Dr. Alfred Stocker, Rock Island, was fined \$500 and costs in the federal district court at Peoria, November 6, when he pleaded guilty to the second count of an indictment charging him with violation of the Harrison Narcotic Law.

—A dinner was given in honor of Dr. Gerald Webb, Colorado Springs, Colo., at the Hamilton Club, November 7, following which Dr. Webb addressed a joint meeting of the Chicago Medical Society and the Chicago Tuberculosis So-

ciety on "Tuberculosis Infection, Immunity and Therapy."

—The Chicago Department of Health recently issued an order requiring that milk sold to the public on and after November 15, 1923, by lunch rooms, restaurants, cafes and other eating places be served in the original containers, bottles or receptacles of a similar character instead of by the glass as heretofore.

—A drive for the purpose of collecting \$500,000 for the erection of a new hospital for destitute and crippled children at Washington boulevard and Paulina street has been launched by the board of directors of the Home of Destitute Crippled Children. Three lots have been purchased for this purpose and several donations have already been received.

—Two teams, each comprising a physician and a nurse from the staff of the state department of public health, are now in the field to promote health service in public schools and to stimulate the adoption of the model safe milk ordinance and the establishment of child health centers. The schedule will keep these teams busy for at least six months and will begin at Pekin and Mount Carmel.

—At the fourteenth annual meeting of the Illinois Tuberculosis Association at Springfield, October 30-31, Dr. James W. Pettit, Ottawa, was elected president to succeed Dr. George T. Palmer, Springfield, president of the association for the last ten years. Vice presidents elected were: Drs. Lewis C. Taylor, Springfield; Cecil M. Jack, Decatur, and Eva M. Wilson, Manhattan. Dr. Palmer was presented with a loving cup.

—Dr. Robert Emmett Farr of Minneapolis will give courses of instruction to graduates with classes beginning on the first and third Monday of each month. The first course will begin on Monday, January 7, at 9 a. m., at St. Mary's Hospital. The courses will consist of clinical demonstrations of the various methods of employing local anesthesia at St. Mary's Hospital, didactic courses covering the drugs used, their preparation, etc., the anatomy of the sensory nervous system and laboratory courses on the cadaver, where, in addition to demonstrations, the men will practice the introduction of the needles and segmental dissection.

—Damage to the extent of about \$20,000 was inflicted on the Christian Home Orphanage at

Council Bluffs, Iowa, by floods from excessive rains and cloudbursts on the nights of September 28 and 29. Every building at this great institution was damaged, the heating, lighting and power plants rendered useless for several days, and the store rooms in the basements of the buildings were flooded and thousands of dollars worth of supplies ruined. This is the worst catastrophe that has ever befallen this work, and comes as a serious blow when the institution was already struggling to free itself of debt. This institution is non-sectarian, receives orphan and destitute children from all parts of the country and is supported entirely by the voluntary contributions of charitable people. It is appealing to the public for a Thanksgiving (or Christmas) offering to help overcome the losses by the recent floods and to meet running expenses in the daily care of two hundred and fifty inmates. We have had calls from those in distress in foreign climes and have responded to them. Here is a good work right here at home that has met serious trouble and is now asking us for help. Let all send something at Thanksgiving and help to put the home of those little children back on its feet. Address The Christian Home Orphanage, Council Bluffs, Iowa.

Deaths

NATHAN W. ABELL, Chicago; Missouri Medical College, Chicago, 1877; member of the Illinois State Medical Society; aged 74; died, October 30, of cerebral hemorrhage.

THEODORE OWEN BARKLOW, Chicago; Northwestern University Medical School, Chicago, 1921; on the staff of the Illinois Central Hospital; aged 25; died, October 8, of injuries received when the automobile in which he was driving was struck by a train.

LAY GORDON BURROUGHS, Collinsville, Ill.; University of Maryland School of Medicine, Baltimore, 1906; a Fellow, A. M. A.; city health officer; past president of the Madison County Medical Society; president of the board of education; served in the M. C., U. S. Army, during the World War; aged 43; died, October 7, at the Good Samaritan Hospital, Zanesville, Ohio, of a skull fracture received in an automobile accident.

MARTIN W. CUSHING, Joliet, Ill.; College of Physicians and Surgeons, Chicago, 1892; member of the Illinois State Medical Society; for many years city health officer; formerly member of the city council; aged 71; died, October 20, of pneumonia.

SARAH BRELSFORD DUNCAN, Chicago; Hahnemann Medical College and Hospital, Chicago, 1893; aged 74; died, October 31, of carcinoma.

BENJAMIN A. GRIFFITH, Swan Creek, Ill.; Bennett College of Eclectic Medicine and Surgery, Chicago, 1878; member of the Illinois State Medical Society; Civil War veteran; formerly postmaster of Monmouth; aged 79; died, October 10, from the effects of a fall.

FREDERICK HESTER, Rushville, Ill.; College of Physicians and Surgeons, Keokuk, Iowa, 1895; aged 55; died, October 27, of cerebral hemorrhage.

WILLIAM A. KIMMET, Oak Forest, Ill.; Northwestern University Medical College, Chicago, 1892; a Fellow, A. M. A.; specialized in surgery; assistant superintendent to the Cook County Infirmary and Tuberculosis Hospital; aged 51; died, August 12, following an appendectomy.

GIBSON P. LIVINGSTON, Waterloo, Ill.; Missouri Medical College, 1877; aged 66; died, October 13, at St. Joseph's Hospital, Alton, of injuries received when struck by an automobile.

JAMES H. McLAIN, Eaton, Ill.; Kentucky School of Medicine, Louisville, 1888; aged 58; died, October 8, of tuberculosis of the intestine and cirrhosis of the liver.

LOYD T. MILLER, Caseyville, Ill.; St. Louis (Mo.) Medical College, 1863; Jefferson Medical College of Philadelphia, 1864; Missouri Medical College, St. Louis, 1879; member of the Illinois State Medical Society; aged 82; died, October 25, at the Lutheran Hospital, St. Louis, of senility.

EZEKIEL PRICE MURDOCK, Chicago; Rush Medical College, Chicago, 1880; Civil War veteran; formerly superintendent of schools in Streator, Ill., Shelbyville, Ill., and Memphis, Mo.; aged 78; died, November 14.

JOHN ALONZO NOLAN, New Athens, Ill.; Washington University Medical School, St. Louis, 1904; aged 59; died, October 20, at St. Vincent's Hospital, Belleville.

MARK BELL PENICK, Kinderhook, Ill.; Eclectic Medical Institute Cincinnati, 1865; aged 89; died, October 3, of senility.

JOHN L. PRIESTMAN, Neponset, Ill.; Chicago Medical College, 1881; member of the Illinois State Medical Society; president of the State Bank of Neponset; aged 66; died, November 9, at Los Angeles, of cerebral hemorrhage.

ALBERT H. SIMMONS, Girard, Ill.; American Medical College, St. Louis, 1882; member of the Illinois State Medical Society; aged 67; died, November 1, of cerebral hemorrhage.

JAMES DAVID DON TRUMBAUER, Ohio, Ill.; Rush Medical College, Chicago, 1897; aged 48; died, November 5, at the People's Hospital, Peru, of a self-inflicted bullet wound, while suffering from ill health.

CHARLES G. SCHMIDT, St. Jacob, Ill.; Marion Sims Medical College, St. Louis, 1897; a Fellow A. M. A.; aged 51 years; died, November 25, from a nervous breakdown.

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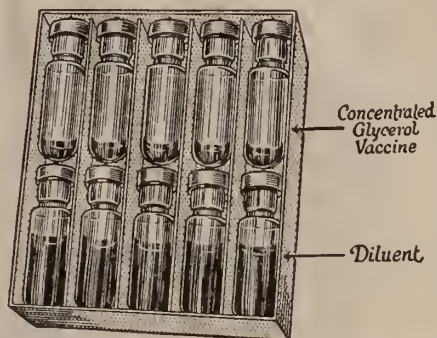
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BOOK REVIEW

THE SURGICAL CLINICS OF NORTH AMERICA. June, 1923. Volume 3. San Francisco number. Philadelphia and London. W. B. Saunders Company. Published bi-monthly. Price \$12.00.

The contributors to this number are Drs. Baldwin, Barkan, Bartlett, Bordman, Brunn, Butler, Cowan, Eloesser, Emge, Fleming, Gilman, Haas, Hinman, Lynch, Maxwell, Naffziger, Newell, Pierce, Rhodes, Rixford, Searls, Smith, Spaulding, Towne, Weeks, Woolsey.

MEDICAL STATE BOARD QUESTIONS AND ANSWERS. By R. Max Goepp, M.D., Prof. Clinical Medicine at the Philadelphia Polyclinic, Assistant Professor Clinical Medicine, Jefferson Medical College. Fifth edition written, thoroughly revised. Octavo volume of 731 pages. Philadelphia and London. W. B. Saunders Company. 1923. Cloth. Price \$6.00 net.

This edition has been thoroughly revised and a number of additions have been made. We highly recommend the work for those intending to take State Board Examinations.

TONSILLECTOMY BY MEANS OF THE ALVEOLAR EMINENCE OF THE MANDIBLE AND A GUILLOTINE WITH A REVIEW OF THE COLLATERAL ISSUES. By Greenfield Sluder, M.D. With 90 illustrations. St. Louis. C. V. Mosby Company. 1923. Price \$5.00.

This monograph presents the method of Tonsillectomy by means of the Alveolar Eminence of the Mandible and a Guillotine. No man in America has done more than Dr. Sluder to bring the subject of tonsillectomy to the high plane which it now occupies. This work is a valuable edition to the subject and should be in the library of every physician doing throat work.

EPIDEMIOLOGY ON PUBLIC HEALTH. In three volumes. By Victor V. Vaughan, M.D. Volume II. St. Louis. C. V. Mosby Company. 1923. Price \$9.00.

This book is intended as a reference book for physicians, medical students and health workers. This volume deals with nutritional disorders, alimentary infections and percutaneous infections.

THE TONSILS—FAUCIAL, LINGUAL, AND PHARYNGEAL. By Harry A. Barnes, M.D. Illustrated. Second Edition. St. Louis. C. V. Mosby Company. 1923. Price \$5.00.

Since the first edition of this work much has been learned about the subject of the tonsils, the operations for the removal of diseased tonsils has been considerably standardized. In this work the subject is brought up to date.

CEREBROSPINAL FLUID IN HEALTH AND IN DISEASE. By Abraham Levinson, M.D. With 69 illustrations.

(Continued on page 22)

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Sollmann: Manual of Pharmacology, Ed. 2, 1922, p. 581.

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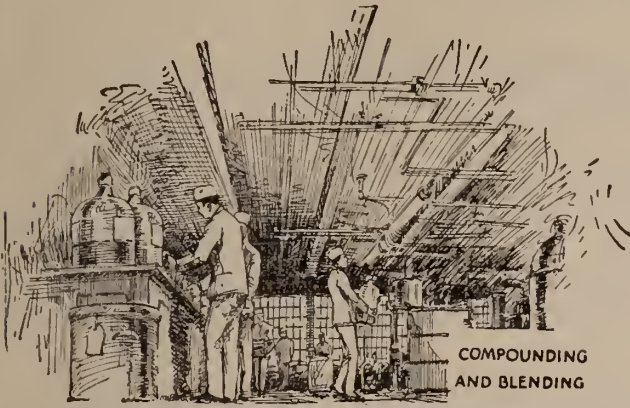


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Book Reviews

(Continued from page 7)

including 5 colored plates. Second edition. Thoroughly revised. St. Louis. C. V. Mosby Company. 1923. Price \$5.00.

In the second edition the author has incorporated the most recent research on Cerebrospinal Fluid. Much new data has been added, in some cases necessitating the recasting of some chapters. Several old illustrations have been discarded and many new ones have been added. Some of the methods of the examination have been simplified for practical use. References have been brought up to date.

Books Received. OPTOTYPES Consisting of test letter and PICTOGRAPHS for measuring the acuteness of vision. Green & Ewing. C. V. Mosby Company, St. Louis.

THE SURGICAL CLINICS OF NORTH AMERICA. JUNE, 1923. VOLUME III. SAN FRANCISCO NUMBER. PHILADELPHIA AND LONDON. W. B. SAUNDERS COMPANY. PUBLISHED BI-MONTHLY. PRICE \$12.00.

The contributors to this number are Drs. Baldwin, Barkan, Bartlett, Bordman, Brunn, Butler, Cowan, Eloesser, Emge, Fleming, Gilman, Haas, Hinman, Lynch, Maxwell, Naffziger, Newell, Pierce, Rhodes, Rixford, Searls, Smith, Spaulding, Towne, Weeks, Woolsey.

MEDICAL STATE BOARD QUESTIONS AND ANSWERS. BY R. MAX GOEPP, M.D., PROF. CLINICAL MEDICINE AT THE PHILADELPHIA POLYCLINIC; ASSISTANT PROF. CLINICAL MEDICINE, JEFFERSON MEDICAL COLLEGE. FIFTH EDITION WRITTEN, THOROUGHLY REVISED. OCTAVO VOLUME OF 731 PAGES. PHILADELPHIA & LONDON. W. B. SAUNDERS COMPANY. 1923. CLOTH, PRICE \$6.00 NET.

This edition has been thoroughly revised and a number of additions have been made. We highly recommend the work for those intending to take State Board Examinations.

THE TREATMENT OF ARTERIAL HYPERTENSION WITH LOW SODIUM CHLORIDE DIETARY

The determining cause of hypertension is a larger intake of sodium chloride than a damaged kidney can excrete. Complicating causes are excess of water in the blood with distension of the arterial tree and possibly retention of uric acid. Kidney limitation arises from previous acute infectious disease or from irritation by toxins absorbed from local septic foci. With the renal epithelium, the thyroid, pancreas, eye, and other highly specialized organs all suffer. Renal albuminuria of any degree is a manifestation of irritation.

With high blood pressure patients the author fol-

lows a régime based on exact determination of the salt content of their blood plasma. Intake of salt is reduced to two grams daily, that of liquid and purins as low as possible. Lassitude ensues, but a week or more of deprivation suffices and on fall of blood pressure, the sodium intake is increased. Cardiac complications are immeasurably benefited by reduction of blood pressure, and salt reduction should always be considered in the treatment of diabetes, toxic eye conditions, toxemias of pregnancy and the postoperative care of surgical patients.—H. A. Houghton (*Medical Record*, March 18, 1922).

TETANY AND THE PARATHYROIDS

A patient subjected as a girl of seventeen to complete excision of the thyroid gland in 1882, lived till 1919. Meantime she suffered from recurrent attacks and periods of tetany. Transplantation of a thyroid fragment in 1907 produced no improvement. Parathyroid transplantation induced absence of tetany for six years. On later relapse cereal free diet gave excellent results. At autopsy a large right ovarian cyst was found and an egg sized tumor attached to the gallbladder, which proved to be the thyroid transplanted twelve years before showing signs of active functioning. Eiselsberg recommends medical measures and only in case these are ineffective should transplantation be considered. He found grafts from newborn infants and from apes ineffective and only parathyroids from adults just after death to be of value.—A. Eiselsberg (*Wiener Klinische Wochenschrift*, Jan. 5, 1922).

THE SOURCES OF VITAMINES

It has recently been satisfactorily demonstrated by Nelson, Fulmer, and Cessna and by Harden and Zilwa that yeast can grow freely without any supply of vitamins and that it can synthesize vitamin B from a diet of inorganic salts and sugar. Therefore yeast may be looked on as the source of vitamin B.

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For bottle fed babies the supply of vitamin A appears to depend chiefly on the diet of the cows furnishing them milk, while the supply of vitamin C is determined chiefly by the treatment the milk undergoes during its passage from the dairy to the infant.—(Editorial in *The British Medical Journal*, Jan. 21, 1922).

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Dercum's disease has been attributed by some authors to a thyroid origin and in this case a number of symptoms favor such a supposition. The patient complains of chilliness and has frequent flushes of heat: she exhibits alopecia in regions not affected by adiposity, the scalp and eyebrows. This seems slight ground, however, for deciding on such a diagnosis. No ovarian insufficiency is traceable and the electrical reactions are normal.

On the contrary, radiography shows changes in the sella turcica, an increase in its length, a diminished density of the posterior wall. This wall is concave, thinner than normal, its posterior surface convex backward instead of smooth, its center almost invisible. These lesions, especially the enlargement

of the cavity, lead to the inference of pituitary hypertrophy. Its nature cannot be told: there are no symptoms of cranial hypertension, nor any ocular disturbances.

Burr, Dercum and MacCarthy, Madelung, Stalper, Delucq, Guillain and Alquier, Price, Babonneix and Spanowsky, have all reported cases of this disease having pituitary or sellar lesions. But such lesions are not constant, since cases with normal radiographs of the sella are published by Babonneix and Spanowsky, by Texeira-Mendes and Monte Serra, and by Fournier.—P. Vallery-Radot and M. A. Dollfus (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 6, 1922).

ON THE QUESTION OF PINEAL FUNCTION

In contrast with Askanazy's view of the oncogenic origin of macrogenitosomia and precocious puberty in instances of brain tumor, the author adheres to his previous opinion that these syndromes are due to diminished pineal function because of encroachment of the tumor on the gland, although it must be recognized that definite proof has not yet been furnished of endocrine action on the part of the pineal gland in morphogenesis.—Berblinger (*Virchow's Archiv für Pathologische Anatomie und Physiologie*, 1922, 237:144).

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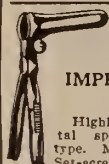
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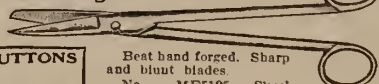
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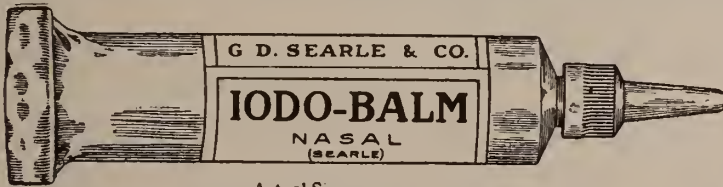
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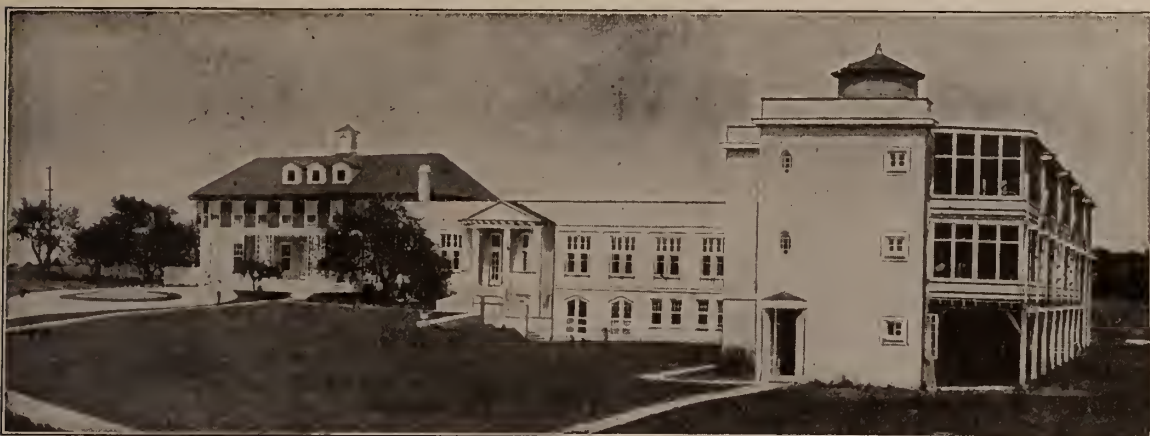
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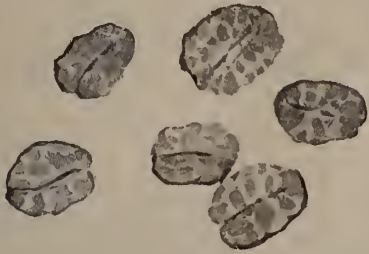
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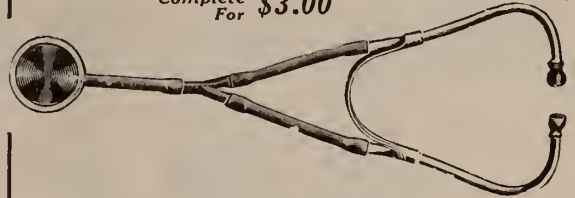
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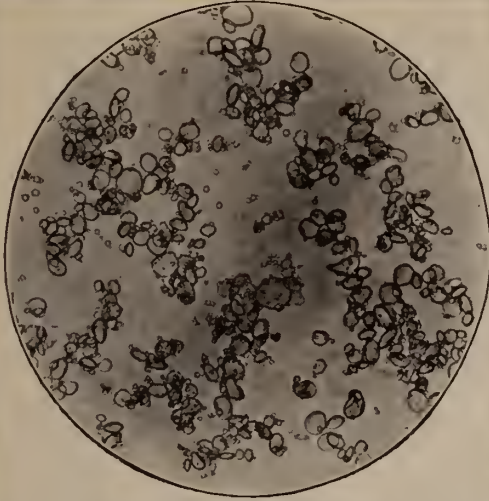
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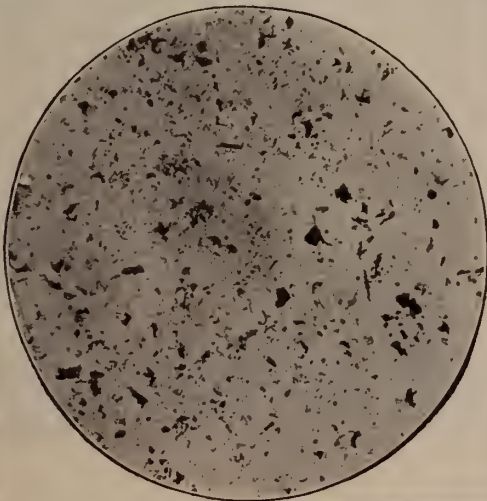
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JUDGMENT AGAINST ONE OF TWO PHYSICIANS NOT JUSTIFIED

(*Drew v. Cregar et al* (N. J.), 118 *Atl. R.* 844)

The Court of Errors and Appeals of New Jersey says that, in this action brought by the plaintiff as an administrator, the defendants were physicians called by him to attend his wife in childbirth. At the time of her confinement, Dr. Cregar was ill, and the other defendant, Dr. Pratt, was the physician actually in attendance. In the course of treatment, Dr. Pratt had to deal with an adherent placenta, which the jury may have found was due to the fact that the husband, shortly before the confinement of his wife, was affected with gonorrhea. The jury found in favor of Dr. Pratt, and against Dr. Cregar; and when the trial judge asked whether the finding was such that the negligence on which the verdict was based was that for which Dr. Cregar himself was responsible, in which Dr. Pratt did not participate, the foreman answered, "Yes." The finding therefore was that Dr. Cregar was not liable on the theory of responsibility for Dr. Pratt's negligence. The question, then, was whether the case was such that Dr. Cregar could be held for negligence, since the jury had negated the liability of Dr. Pratt, so that Dr. Cregar could not be held on the theory of respondent superior (let the superior answer).

The judge had charged that, if the jury was satisfied that it was Dr. Cregar's duty to advise the physician to whom he had turned over the case of the condition that existed; that the husband had gonorrhea and that there was a possibility of infection from it; and that if the jury was satisfied that this condition had a direct bearing on the woman's death, the jury might determine whether that was negligence on the part of Dr. Cregar as a physician, and whether he had exercised that care which a physician should in these circumstances. That warranted the jury in finding a verdict in favor of Dr. Pratt, and against Dr. Cregar alone. Without regard to whether the judge was otherwise warranted in charging on that point as he did, the court is of the opinion that under the pleadings he was not. The complaint was against both physicians, and averred that Dr. Cregar delegated Dr. Pratt as his agent to attend the plaintiff's wife and to deliver her of the child; that it was the duty of Dr. Cregar, by his agent and servant, Dr. Pratt, to carefully, skilfully and in a proper manner treat and attend the plaintiff's wife and deliver the child; that the defendants did not remove the placenta within a proper time and in a skilful and proper manner, and that the body of the plaintiff's wife became infected thereby, her death following. Clearly, the complaint did not aver negligence on the part of Dr. Cregar alone and apart from Dr. Pratt; nor did it aver the negligence on which the trial court allowed the jury to find against Dr. Cregar for failure to perform his duty in advising Dr. Pratt of the condition that existed and the fact that the husband had gonorrhea. For very obvious reasons, the husband

was not likely to desire the case to be tried on the theory that he was responsible for his wife's death; but Dr. Cregar was entitled to be apprised of the ground on which he was to be held, and entitled to have the issue tried limited to the issue made by the pleadings—the issue he was alone bound to defend. The jury, as the case was tried, held him liable on a ground outside the scope of the case.

Because, under the circumstances, it was erroneous to charge that the plaintiff might recover of Dr. Cregar for his own negligence, and acquit Dr. Pratt, the judgment rendered against Dr. Cregar is reversed.

—*Journal A. M. A.*

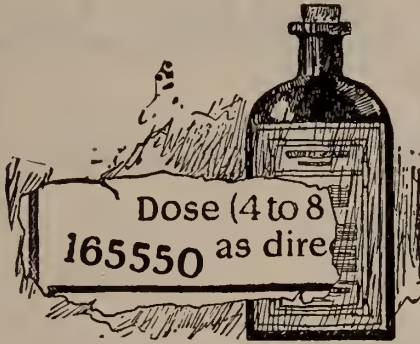
DYING DECLARATIONS IN PROSECUTION FOR ATTEMPTING TO CAUSE MISCARRIAGE

(*State v. Bricker* (N. J.), 118 *Atl. R.* 747)

The Supreme Court of New Jersey, in affirming a judgment of conviction of the defendant of having attempted to cause the miscarriage of a pregnant woman, in consequence whereof she died, holds that when an indictment charges a defendant with such statutory misdemeanor, the dying declarations of the woman are legal evidence on trial of the case. The court says that in this case two statements were offered in evidence as dying declarations. Both were made by the woman while in bed in a hospital, suffering from septic peritonitis. Both were made when all about her thought that she was dying, although she was conscious and mentally alert. The first declaration was made thirty-four hours before death, and immediately before making it, she said that she was conscious of approaching death, and knew that she had "no chance of recovery." The second declaration was in writing, gathering up in narrative form the oral statements. It was read to her, and assented to and signed by her with a cross, three hours before death. In it, she said, "I am approaching death within a few hours and without any hope of recovery whatever." It is held that the trial judge was justified in finding that both declarations were made under a sense of impending death, and in admitting them in evidence. It is the state of mind and the sense of impending death at the time of making the declaration, and not the fact of quick succession of death after the declaration, that makes a dying declaration admissible in evidence.—*Journal A. M. A.*

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Book Reviews

PHYSIOTHERAPY TECHNIC. A MANUAL OF APPLIED PHYSICS. BY C. M. SAMPSON, M.D. WITH 85 ILLUSTRATIONS. ST. LOUIS. C. V. MOSBY COMPANY. 1923. PRICE \$6.50.

This is a practical work, every step in every technic given in this work is based upon research both in the laboratory and clinic.

INFECTION AND RESISTANCE. BY HANS ZINSSER, M.D. THIRD EDITION. NEW YORK. THE MACMILLAN COMPANY. 1923.

In this third edition the author has considerably altered the arrangement of material into a more logical sequence. The chapter on Colloids in the previous edition has been omitted. All new material on this subject accessible to the author is well founded on experiment and observation has been included, and new opinions and observations, though often still in the balance, have been critically discussed. Whenever in the author's opinion it seemed of sufficient importance, the chapters on Anaphylaxis have been completely rewritten. The chapters on practical therapeutic methods and the theories upon which they are based have been enlarged and rewritten with a purpose of making them more definitely useful to those engaged in the clinical and laboratory study of infectious disease.

OUTLINES OF MEDICAL ZOOLOGY. BY ROBERT W. HEGNER, WM. W. CORT AND FRANCIS M. ROOT. DEPARTMENT OF MEDICAL ZOOLOGY. THE JOHNS HOPKINS UNIVERSITY. NEW YORK. THE MACMILLAN COMPANY. 1923.

The information contained in this text book is based on the personal experience of the writer or selected from original articles in periodicals and from reference and text book. The authors in the Preface state: "The method employed by various workers for the diagnosis of animals of medical importance are very numerous and only a few could be described in this text book.

A SIMPLE TREATMENT FOR TUBERCULOSIS. BY OWEN F. PAGET, M.D., WITH INTRODUCTION BY J. GEORGE ADAMI, M.D., AND PREFATORY REMARKS BY W. P. BIRMINGHAM, M.D. NEW YORK. WM. WOOD & COMPANY. PRICE \$1.75.

THE MEDICAL CLINICS OF NORTH AMERICA (issued serially, one number every other month. Volume VI, Number VI, May, 1923). BY San Francisco Internists. Octavo of 296 pages with 66 illustrations and Complete Index to Volume VI. Per clinic year (July, 1923, to May, 1924). Paper, \$12.00 net; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

The contributors to this number are Drs. Briggs, Bruck, Catton, Marshall C. Cheney, William Fitz Cheney, Dixon, Ebright, Falconer, Gelston, Harvey, Hein, Hiatt, Kerr, Kilgore, Lissner, Lucas, Miller, Mor-

ris, Nixon, Pierson, Porter, Pringle, Read, Reed, Spiro, Taussig, Wyckoff.

THE INFANT AND YOUNG CHILD. Its care and feeding from birth until school age. A manual for Mothers. By John Lovett Morse, M.D., Edwin T. Wyman, M.D., and Louis Webb Hill, M.D., of Harvard Medical School and Children's Hospital, Boston. 12mo of 271 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1923. Cloth, \$1.75 net.

In this book the writers have endeavored to tell mothers what they should know in order to intelligently feed and care for their children from the time they are born until they are six years old.

1922 COLLECTED PAPERS OF THE MAYO CLINIC, Rochester, Minn. Octavo of 1394 pages, 488 illustrations. Philadelphia and London: W. B. Saunders Company. 1923. Cloth, \$13.00 net.

RECOVERY RECORD. BY GERALD B. WEBB, M.D., AND CHARLES T. RYDER, M.D. NEW YORK. PAUL B. HOEBER. PRICE \$2.00.

This work is the result of the author's 25 years' experience of the needs for successful guidance in the treatment of tubercular patients. The work is divided into four chapters. Following the text there are 108 chart sheets.

FOOD FOR THE DIABETIC. BY MARY PASCOE HUDDLESON. WITH AN INTRODUCTION BY NELLIS BARNES FOSTER. NEW YORK. THE MACMILLAN COMPANY. 1923. PRICE \$1.25.

The purpose of this book is to give patients, briefly and in simple language, the information of the nature of their disease from a dietetic standpoint that is necessary in order to carry out their physicians' directions.

THE RIDDLE OF THE RHINE. BY VICTOR LEFEBURE WITH A PREFACE BY MARSHAL FOCH. NEW YORK. THE CHEMICAL FOUNDATION, 81 FULTON ST.

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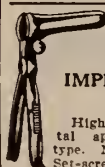
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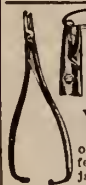
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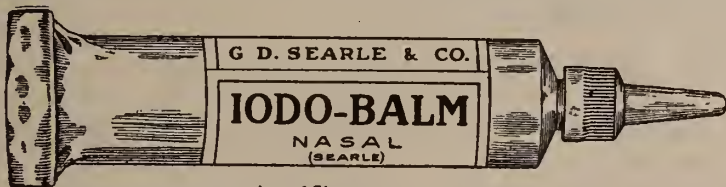
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Working in Urechia's psychiatric clinic at Cluj in Roumania, the authors have conducted a series of tests to ascertain whether pituitrin acts upon striated muscle tissue. Carnot claims such an action. The investigation was suggested to the authors on observing the effect of pituitrin upon the asthenia of a patient with diabetes insipidus. Asthenia, or more correctly altered tonus, is a fairly frequent manifestation of diseases focused in the striated optic ganglia and the opto-peduncular tract—of epidemic encephalitis, Parkinson's disease and diabetes insipidus. In none of these affections do either the adrenals or the pituitary present lesions of importance sufficient to explain the asthenia.

The patients on whom the tests were conducted comprised six suffering from after effects of epidemic encephalitis, one case of paralysis agitans, one of syphilitic chorea, one of chronic chorea, and one of neurasthenia with muscular asthenia and insomnia, in all of which definite, often notable, effects were produced. In a case of general paralysis, in one of mania and in one of bulbar sclerosis no result was obtained. The method followed was that of injecting from one to three centigrams of pituitrin after taking the ergographic measurement of the individual's strength and the kymographic measurement of the time during which that degree of strength could be exerted. The test was then re-

peated every half hour for four hours, and continued daily with varied intermissions for three months.

One gratifying effect in lethargic patients was inhibition of hypersomnia, in one instance a very pronounced relief. On sufferers from other diseases pituitrin had no such effect, even when injected at bedtime. Its influence therefore is only on pathological sleep.

Parkinsonians were found to complain still of weakness when the dynamometer showed no loss of force. This favors the hypothesis of a subjective origin, a disturbance of muscular tonicity. In these cases the immediate results of injecting pituitrin lasted from two to three hours, but they appeared cumulative, for both strength and capacity for work increased progressively for several days following.

The conclusion drawn from these few tests was that pituitrin deserves a trial in Parkinsonism and in lethargic states. It has a definite influence on striated muscle fibre, it increases muscular strength and working capacity.—C. I. Urechia and F. Graff (*Annales de Medecine*, July, 1922).

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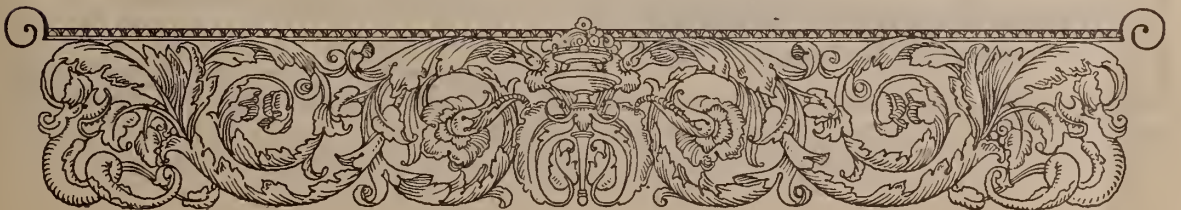
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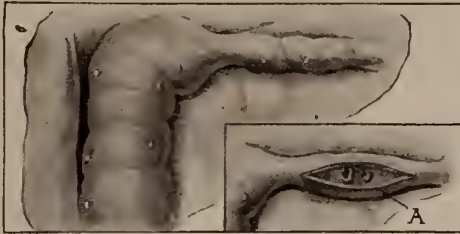
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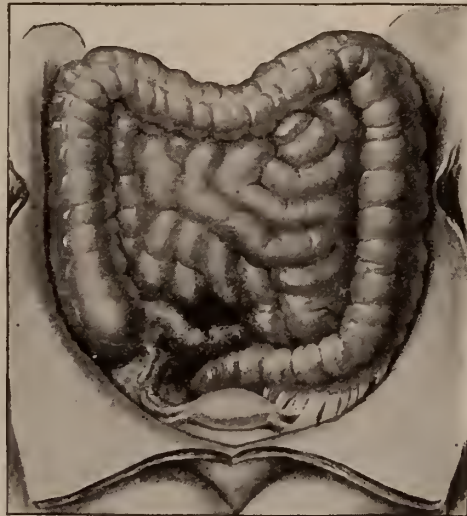
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Atonic Constipation is characterized by a relaxed, inactive gut favoring fecal impactions, particularly at the flexures of the intestine, and predisposing to inflammatory conditions, resulting in colitis. Nujol will prevent the formation of large fecal masses, thereby lessening bowel distention with its consequent inhibition of peristaltic nerve impulses.

Spastic Constipation is characterized by a narrow lumen with deep crypts, hypermotility and dry, hard scybalous feces covered with mucus. Nujol lubricates the constricted canal, permeates the crypts, softens and coats the scybalous masses, thus relieving friction and consequent irritation.

In *Dyschezia* (rectal constipation) the

feces may reach the pelvic colon in normal time, but the rectum is evacuated with much difficulty. The feces, by remaining too long in this region, have all the water abstracted, become hard and dry, and painful defecation ensues with resulting complications. Nujol keeps the fecal mass in this region soft and prevents complete water abstraction, thereby acting prophylactically against rectal diseases.

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and the functions of the body are depressed and deficient, what restorative or reconstructive do you know of that will do more for the weak and debilitated than

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If you are not familiar with the therapeutic efficiency of Gray's Glycerine Tonic Comp., a trial in some case will show you the advantages of using a remedy that for over a third of a century has never failed in its responsibility and good faith to those it has served.

What tonic when given to patients convalescent from **influenza, bronchitis, pneumonia, diphtheria, scarlet fever or measles**, or from **surgical operations**, will so promptly stimulate the appetite, improve the digestion, increase the assimilation of food and thus restore vitality and strength, as Gray's Glycerine Tonic Comp.?

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TUBERCULOSIS AMONG DIFFERENT NATIONALITIES IN NEW YORK

There are tremendous racial differences in tuberculosis as shown by the variations in the death rate during the period of 1918-1921. It varies from 398 among the negroes, 342 among the Finns, 306 among the Irish, to 92 among the Roumanians and 86 among the Russians (chiefly Jews.) These racial differences are being inherited but the inheritance of today was the environment of yesterday. It is an interesting fact that the higher rates appear in those race stocks which are still, or only recently, coming from agricultural countries and that better resistance to tuberculosis is found among people who have been undergoing the process of tubercularization for longer periods and especially in cities or towns. The negroes, the Irish and the Finns are mainly agricultural peoples, while the Jews have lived in congested parts of cities for generations.—*N. Y. T. B. Assoc. Bul.*, 4:3-6. June, 1923.

HE GOT EVEN

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0.6 gram.....	.80	per ampule
0.75 gram.....	.90	per ampule
0.9 gram.....	1.00	per ampule



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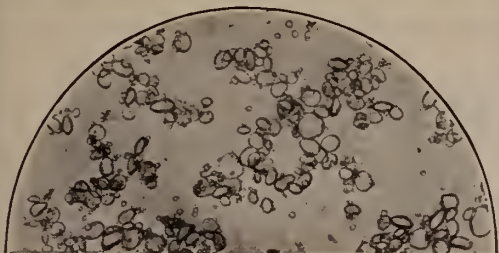


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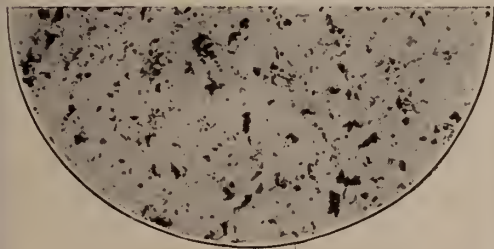
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For example, the U. S. P. dose for Thyroid is 1 grain of the **desiccated** substance, and of Suprarenal, 2 grains of the **desiccated** substance.

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is a pluriglandular formula which is used by thousands of physicians in the treatment of various types of ovarian dysfunction.

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as well as Amenorrhea, Dysmenorrhea, Menstrual Neuroses and Circulatory Imbalance respond to this rational form of medication.

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FACT, NOT FANCY

"If you please, ma'am," said the servant from Finland, "the cat's had chickens."

"Nonsense, Gertrude!" returned the mistress of the house. "You mean kittens. Cats don't have chickens."

"Was'them chickens or kittens that master brought home last night?"

"Chickens of course."

"Well, ma'am, that's what the cat has had."—Youth's Companion

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(Continued on page 48)

IS THERE GROUND FOR ADMINISTERING PINEAL PREPARATIONS FOR FAT- TENING AND PITUITARY PREP- ARATIONS FOR OBESITY

In the not infrequent cases where great difficulty is met in increasing flesh and where lack of results from other measures only too often impels us to give up the quantity of food which overburdens the capacity of the intestinal canal, preparations of pineal gland substance afford a welcome aid. They seem to me more practical and certain than the arsenic preparations. The method is particularly rational since Marburg has shown that hypertrophy and overactivity of the pineal gland regularly causes an increase in flesh. In contrast to pituitary extract, that of the pineal gland seems to check the oxidation increasing action of the thyroid and so to counteract its restraint upon the gaining of flesh. My own experiences are confined to cases of Basedow's disease and basedowoid and other forms of hyperthyroidism, to numerous cases of tuberculosis and of diabetes mellitus. Intramuscular injections of "epiglandol" were given daily or every second day for from three to five weeks. Results are not yet assured, but I have many cases under observation where body weight has greatly increased on a prescribed diet.—K. von Noorden (*Klinische Wochenschrift*, July 1, 1922).

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which contains Viburnum 64 grs. Hydrastis 15 grs. Caulophyllum 40 grs. and Passiflora 80 grs.

GENITONE improves digestion and nutrition, overcomes congestion, relieves pain, subdues exaggerated reflexes, and thus helps to re-establish normal physiologic functions especially indicated in amenorrhea, dysmenorrhea, menorrhagia, threatened abortion and sexual neuroses. For sample, literature and case reports address

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Sollmann: Manual of Pharmacology, Ed. 2, 1922, p. 581.

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FUNCTIONAL DIAGNOSIS OF DISEASES OF THE ENDOCRINE GLANDS

In some cases the secretion of an endocrine gland is a nutrient substance, in others constructive material, in still others a stimulant to some other organ. Knowledge of a given endocrine function is gained by study of (1) deficiencies resulting from removal of that gland, (2) curative effects produced by implantation of deficient gland substance, (3) the symptomatology of endocrine hyperfunction. The dependence of these glands on the nervous system is of first importance. The centers involved lie in the subthalamic region and in the floor of the fourth ventricle. The endocrine glands are subject to the same trophic influences as the muscles. Addison's disease with its atrophy of the chromaffin tissue and diabetes with its degenerated islands may be ascribed to nervous origin. The source of pluriglandular sclerosis may be some lesion of the nervous centers. Syndromes of endocrine hyperfunction show symptoms not capable of reproduction by feeding gland substances, the ocular symptoms of goiter, acute goiter following nerve shock. Abderhalden's reaction testifies to involvement of these glands in certain nervous diseases. Hidden endocrine changes are in some instances of a permanent nature, especially those at the root of diabetes. One difficulty in diagnosing endocrine disease arises from the frequent occurrence conjointly of disease in the nervous system.—Falta (*Klinische Wochenschrift*, May 13, 1922).

ON THE RELATION OF THE THYROID GLAND TO THE FEMALE PELVIC ORGANS

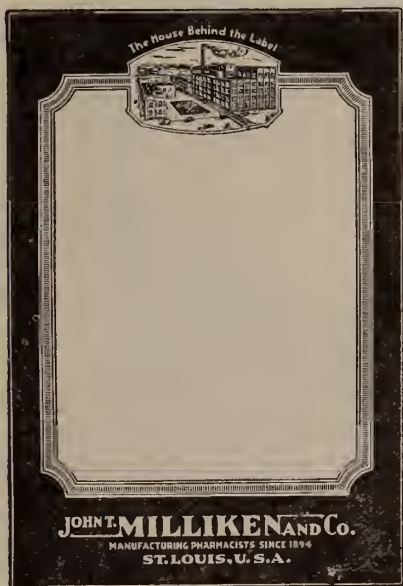
Basal metabolic rate was always found increased by the authors in hyperthyroid cases, and an improvement in consequence of treatment to be accompanied by a fall in metabolic rate. Not in all, but in nearly all pregnant women a rise of basal metabolic rate occurs, which is quite independent of vomiting, eclamptic phenomena, enlargement of the thyroid, or other clinical conditions. Since in some women the rate still remains high after the puerperium has ended, the authors have sought to connect this fact with so-called functional menorrhagia. They give, accordingly, figures for basal metabolic rate in nearly thirty cases of excessive menstruation, showing the effect of x-ray treatment. These cases, whenever hyperthyroidism was present in them, however resistant to ordinary measures, readily responded to x-ray treatment of the thyroid gland, while those without hyperthyroidism failed to do so. The disappearance of pelvic symptoms coincided with a fall to normal of the basal metabolic rate.—C. M. Wilson and A. W. Bourne (*The Lancet*, May 27, 1922).

HE KNEW

Fresh: "I don't know what to do with my weekend."

Soph: "Put your hat on it."—Business Suggestions.

Behind the label—honor



IN ancient days the coat-of-arms was the identifying insignia of a family. It was the outward symbol of the family honor, traditions and standing.

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MANUFACTURING PHARMACISTS SINCE 1894
ST. LOUIS, U.S.A.

Book Reviews

MEDICAL CLINICS OF NORTH AMERICA. Volume 7, Number 1. Mayo clinic number. July, 1923. Published bi-monthly. Philadelphia and London. W. B. Saunders Company. Price per year, \$12.00.

The contributors to this number are: Drs. Adams, Amberg, Barhorka, Barrier, Boothby, Bowing, Brown, Buie, Bumpus, Desjardins, Doyle, Foucar, Giffin, Hardt, Hartman, Hench, Holloway, Joseph, Keith, Lemon, Logan, Magath Melson, Rowntree, Stacy, Stokes, Vinson, Wagcner, Wilder, Willius, Wilson, Woltman.

HEART RECORDS. Their interpretation and preparation. By Calvin S. Smith, M.D. Containing 126 original illustrations Philadelphia. F. A. Davis Company. XX, 1923. Price \$7.00.

This manual is not intended as a short cut to cardiac diagnosis, it is intended to supplement painstaking clinical examinations. The volume aims to point out the proper way to graphic records, in order that the pitfalls which beset the path of the beginner both in interpretation and preparation may be avoided.

EXCURSIONS INTO SURGICAL SUBJECTS. By John B. Deaver, M.D., Emeritus Professor of Surgery, University of Pennsylvania; Surgeon-in-Chief, Lankenau Hospital, Philadelphia;—and Stanley P. Rieman, M.D., Assistant Professor of Experimental Pathology, University of Pathology, University of Pennsylvania; Chief of the Department of Pathology and Bacteriology, Lankenau Hospital, Philadelphia. Octavo volume of 188 pages and 30 illustrations. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$4.50 net.

This volume represents a series of lectures delivered by the author to graduate students at the Washington University. The pathologic and physiologic phases in these lectures have been developed from several sources, the literature, the author's experiences and experimental work coupled with observations in his clinic.

PAPERS FROM THE MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH AND THE GRADUATE SCHOOL OF MEDICINE OF THE UNIVERSITY OF MINNESOTA, covering the period of 1920-1922. Octavo volume of 716 pages with 257 illustrations. Philadelphia and London: W. B. Saunders Company. 1923. Cloth, \$10.00 net.

The favorable reception accorded the first volume has stimulated the foundation authorities to issue the second volume. All that we said about the first volume applies with equal emphasize to the second. The work is divided into eleven chapters as follows: alimentary tract; urogenital organs; ductless glands; blood and circulatory organs; skin and syphilis; head,

trunk and extremities; brain, spinal cord and nerves; organic and physiological chemistry; general bacteriology; general miscellaneous; technic.

WHAT A SALESMAN SHOULD KNOW ABOUT HIS HEALTH. By William S. Sadler, M.D., Chicago. The Darntnell Corporation. Price \$1.10.

The seventh of a series of standard sales manuals. Developed from the numerous addresses which the author has delivered before several hundred sales conventions. The author speaks authoritatively without dragging in health cults or fads, giving the salesman practical day by day plans for building physical business energy.

PRACTICAL DIETETICS. By Alida Frances Pattee. Mt. Vernon, N. Y. A. F. Pattee, 1923. Price

This is the fourteenth edition of this work. This is the latest and most authoritative text issued on the subject. It follows the outline arranged by the National League of Nursing Education.

CURES. THE STORY OF CURES THAT FAIL. By James J. Walsh, M.D., New York and London. D. Appleton & Company, 1923. Price \$2.00.

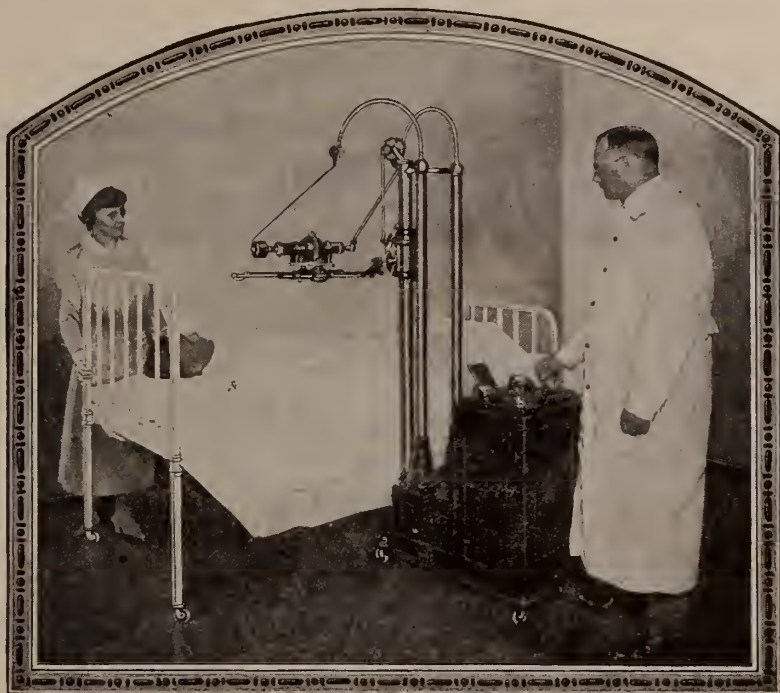
In this work the author reviews the history of the varied panaceas for human ills which the public have grasped at in the past and which wins so many adherents at the present time. As old as human nature is this search for the remedy or the treatment that will alleviate human ills; Dr. Walsh's entertaining style of writing and his medical knowledge are allied in a truly amazing record of the world's credulity. His viewpoint is one of fairness and impartiality. In his first chapter he tells of the cures that have failed—a surprising marshaling of facts running right down to our day and generation. "Personal Healers" marked the whole course of the history of cures, from the English Kings' cure of "King's evil" to such modern healers as Phineas Quimby and Dowey. The author explains "drug cures" and "cures with a punch" (a surprising chapter). He tells of Mesmer, Dr. Elisha Perkins, and his tractors, "Absent Treatment," Andrew Jackson Davis and others, "cures" thru hypnotism, appliances, and manipulation. Among "Mystical Cures" the reader finds "Dr. Conan Doyle's Spirit World," "Christian Science," and "Religious Cures." Psycho-analysis and Coue are the subjects of interesting analysis.

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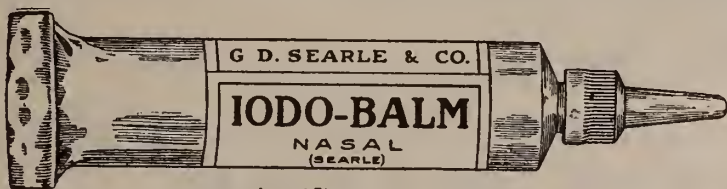
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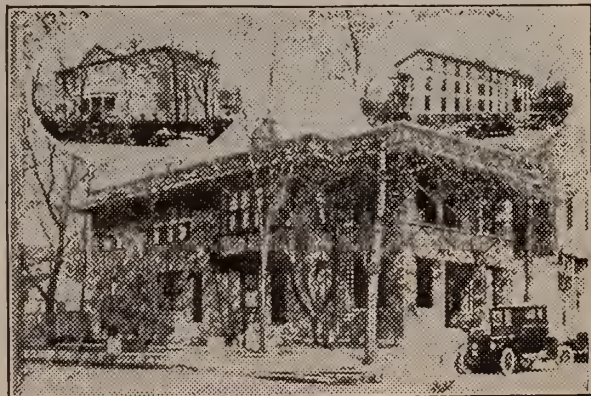
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Europe will get well when she makes up her mind Uncle Sam is not the only doctor who can cure her.—Toledo Blade.

Scientists say that violin-playing is a hair tonic. Well a lot of it is undeniably hair-raising.—New York American.

With half a dozen drug-traffic films being made in Hollywood, the heroin, of course, plays a leading part.—Life.

Chemical experts in Washington say that poison gas will cure tuberculosis. So will decapitation.—Nashville Southern Lumberman.

If a doctor is honest, he won't prescribe too much hootch; and if he's a crook, mere laws won't cramp his style.—Long Island City Star.

Scientists say we are what we eat. Nuts must be a commoner diet than we had thought.—Greenville Piedmont.

Scientists have found a petrified man who has sat with his feet elevated for thousands of years. Probably a primitive job-holder.—Pittsburgh Dispatch.

One of the triumphs of democracy seems to be

that the minority has the say and the majority has to pay.—Brooklyn Eagle.

The Texas girl who set out to dance for fifty hours probably knows how a good many women feel after an average day with four children and a house to look after.—Indianapolis News.

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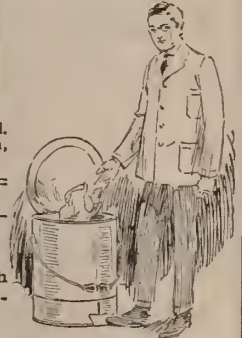
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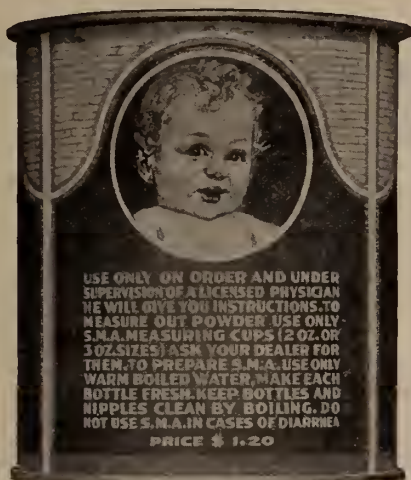
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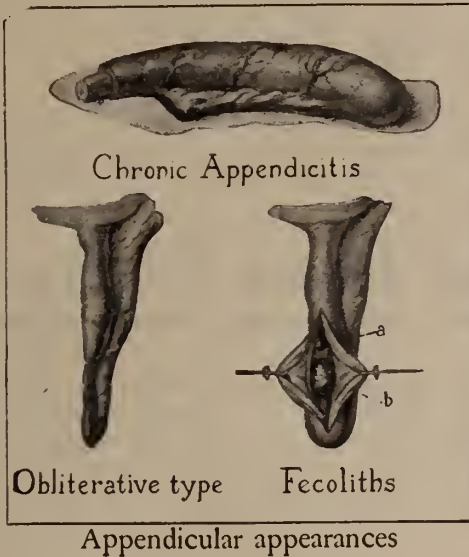
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AN EMINENT PHYSICIAN HAS DIVIDED APPENDICITIS INTO FOUR CLASSES:

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3. *Single mild attack*—surgery inadvisable. Medical treatment usually efficacious.
4. *Recurrent mild attacks or chronic appendicitis*—symptoms which clear up under ordinary dietetic and hygienic regimen.

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"It's fleece was white as snow," of course,

This, too, we will allow,

But, gentle reader, don't you think

It must be whiskers now?

And "every place that Mary went"

The lamb went, too—allow

That this was so, once on a time:

It must be different now.

"It followed her to school one day,"

We also this allow;

The teacher turned it out, of course—

Where is that teacher now?

"What makes the lamb love Mary so?"

The children cry—allow

This to be true—those children must

Be very old folks now.

And Mary? Well, she lived one time,

That also we allow;

But we have wads of wealth to bet

She isn't living now.

—Detroit Free Press.

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The practitioner who employs Neosalvarsan is reinforced in his judgment by more than 12 years of carefully controlled clinical experience. In the manufacture of American Neosalvarsan we have faithfully preserved the processes leading to the production of the original Ehrlich "914," unsurpassed in therapeutic potency.

The lowered prices of this therapeutic sufficiency herewith appended show our mindfulness of our obligations to the profession and the public.

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JUDGE LYNCH.

A red-headed woodpecker sat on a limb—

The dead, dry limb of a sycamore tree.

The world was alight and aglow for him,

For the skies were as blue as blue could be.

And the scarlet patch on the top of his head

Gleamed in the sun where he perched so still,

With his tail feathers stretched and firmly spread

And a grub-worm in his bill.

But under the bird a cadaver was hung

With a face distorted and drawn-up knee,

That fitfully moved and in silence swung

From a lower branch of the sycamore tree.

With a paper fixed to the broad-brimmed hat,

That fluttered there at the wind's light will,

And above, the woodpecker watching sat

With a grub-worm in his bill.

—Ernest McGaffey.

LONG DISTANCE LECTURING.

A pretentious person said to the burgess of a country village:

"How would a lecture by me on Mount Vesuvius suit the inhabitants of your village?"

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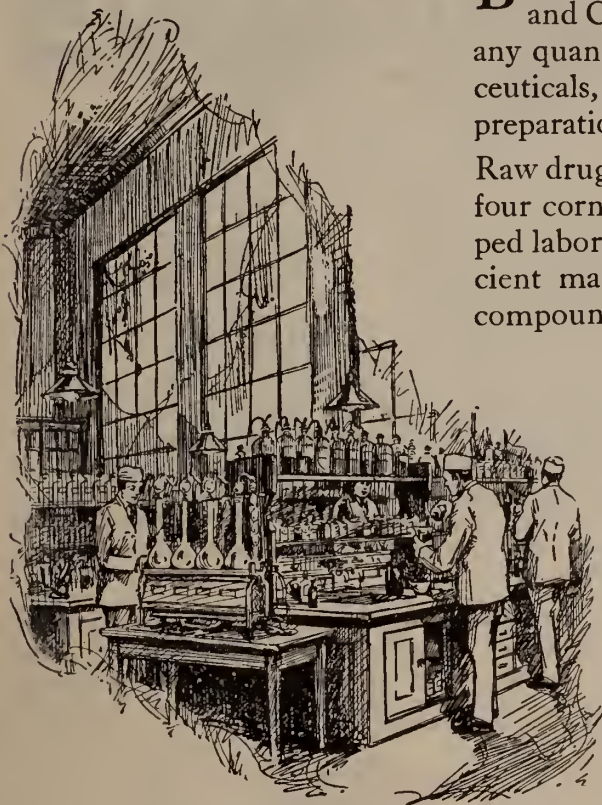
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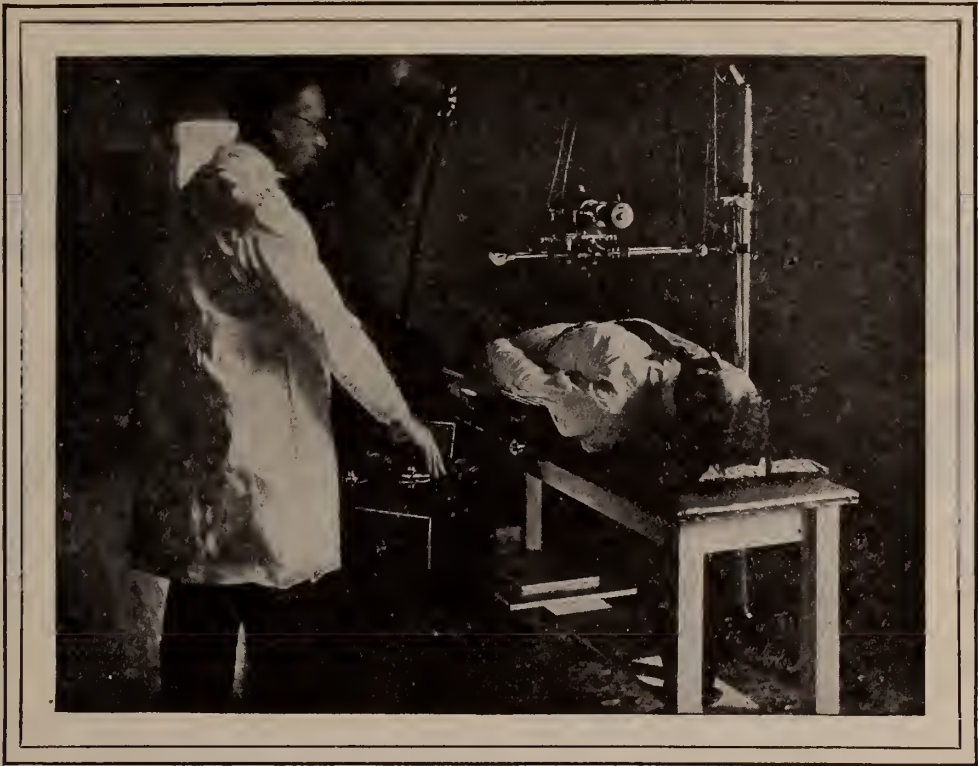
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There are in general two kinds of tissue in every kind of glandular structure—connective tissue and parenchyma, the latter containing the active part. After the glands are dried the parenchyma is reduced to a very fine powder, but the connective tissue is more resistant to the powdering process and retains for a time its threadlike form and consistency. If the connective tissue is finely powdered, as it undoubtedly is in many laboratories, it increases the yield of inert material. Not content to do this, we diminish the yield and further increase the activity of our products by passing our desiccated material through sieves, allowing the finely powdered parenchymatous substance to go through and eliminating the remnants of the inactive connective tissue.

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Book Reviews

THE MEDICAL CLINICS OF NORTH AMERICA. Volume 7, No. 2, Chicago number. September, 1923. Published by-monthly. Philadelphia and London. Price per year, \$12.00.

This number is up to the usual standing of The Medical Clinics.

THE HOSPITAL LIBRARY. By Edith Kathleen Jones. Chicago American Library Association. 1923. Price, \$2.25.

In this work the author surveys the history hospital library service, discusses problems of organization, administration, books selection for patients of different types and different ages including fiction, non-fiction, periodicals, children's books and books for the nurses' library.

THE NORMAL CHILD. By Allan Brown, M. D. New York and London. The Century Company. 1923. Price \$1.25.

This is an up-to-date volume on the care and feeding of children, especially infants, and notable for the wealth of helpful details afforded. The work will be found of great assistance to the mother and nurse and the student of a normal child, dealing with its care and feeding.

HYGIENE OF THE VOICE. By Irving Wilson Voorhees. New York. The MacMillan Company. 1923. Price, \$2.50.

This book gives the author's experience in examining, advising and treating singers and speakers. The author makes a plea for close co-operation between the voice teacher and voice physician.

A CLINICAL GUIDE TO BEDSIDE EXAMINATION. By Drs. H. Elias N. Jagie and A. Luger. Arranged and translated by William S. Brams, M. D. New York. Rebman & Company. 1923. Price

This volume is intended to furnish the physician and student with a guide for the physical examination of a patient at the bedside. It also offers a nomenclature which may be used by the various schools and which may thus facilitate the recording and interpretation of history charts and reports of the results of the physical examination. This book meets the requirements for which it was intended.

THE NOTE BOOK OF AN ELECTRO-THERAPIST. By Mel R. Waggoner, M. D. Illustrated. Chicago. McIntosh Electrical Corporation. 1923. Price,

This is a work of 173 pages. It brings the subject of electro-therapy up-to-date. It should be in the hands of every practitioner who is attempting to treat disease by means of electricity.

A TEXT BOOK OF CHEMISTRY FOR NURSES. By Fredus N. Peters, Ph. D. Illustrated. Second edition. St. Louis. C. V. Mosby Company. 1923. Price, \$2.50.

This book is very simply written so that all may understand. It begins with the most familiar substances of life and leads up to those not so well known. The practical phrases of chemistry are everywhere remembered and emphasized. "Those substances which by their application become our daily servitors and those which, on the contrary, would threaten and en-

danger life, have been introduced and studied carefully.

THE DEVELOPMENT OF THE HUMAN BODY. A Manual of Human Embryology. By J. Playfair McNurrieh. Seventh edition revised and enlarged with 290 illustrations, several of which are printed in colors. Philadelphia. P. Blakiston's Son & Company. 1923. Price, \$3.25.

In this seventh edition the author has incorporated the results of all important recent contributions upon the topics discussed at the same time he has avoided any considerable increase in the bulk of the volume. The subject matter has been thoroughly revised throughout and the book forms an accurate statement of our present knowledge of the development of the human body.

GENERAL MEDICINE. Practical Medical Series. 1923. Volume 1. The Year Book Publishers. Chicago.

In this work infectious diseases and endocrinology is treated by Dr. George H. Weaver; diseases of the chest by Lawrason Brown; diseases of the blood vessels, heart and kidney, by R. B. Preble; diseases of the digestive system and metabolism by Bertram W. Sippy and Ralph C. Brown.

OBSTETRICS FOR NURSES. By Charles B. Reed, M. D. 140 illustrations, including two color plates. St. Louis. C. V. Mosby Company. 1923. Price, \$3.50.

In this second edition the text has been abbreviated in many places and enlarged and emphasized in others. Besides the new text material a number of illustrations have been added.

PRINCIPLES OF BACTERIOLOGY. By Arthur A. Eisenberg, M. D. Second Edition. St. Louis. C. V. Mosby Company. 1923. Price, \$2.25.

The new subject matter in this work includes additional information about the constancy and mutation of bacteria; discussion of the D-Herolle's phenomenon; description of some of the newer technical procedures; thorough description of the rationale and the underlying principles of the Wassermann test; description of the newer precipitation and flocculation tests for the diagnosis of syphilis; discussion of the new colorimetric method of titrating culture media; description of taking blood cultures of the pre-transfusion blood tests, information about anaphylaxis; the chapter on influenza has been rewritten; the relation of leucocytes to infections.

THE SURGICAL CLINICS OF NORTH AMERICA. August, 1923. Volume 3, Number 4. Chicago number. Published bi-monthly. W. B. Saunders Company. Philadelphia & London. Price per year, \$12.00.

The number is up to the usual good standard of the Surgical Clinics.

HEALTHY LIFE. By Edwin Hirsch, M. D. Chicago. The Solar Press. 1923. Price 25c.

This is a pamphlet for boys and young men from fourteen to twenty on social hygiene. It is the aim of the author to put into the hand of boys literature that would explain the manner of birth in such a way that parent and son could read it without encountering any obnoxious wording. This we believe the author has done.

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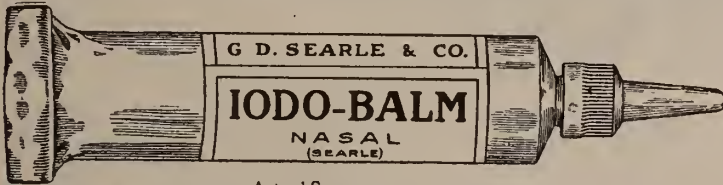
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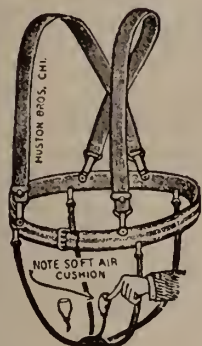
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(Continued on Page 50)

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The parenchymatous organs were indurated, the spleen, kidneys and liver less than the lungs.

The etiology of the connective tissue diathesis, that is, the sclerosis, is not quite clear in this case. The patient had had no infectious disease. Lues was excluded. Sexual development and activity had

always been normal. The author believes such cases of sclerosis of multiple glands of internal secretion should be classified as a disease by itself with characteristic anatomical signs. It is a systematic disease, whereas in other diseases of the endocrine system invariably the lesion involves primarily one gland alone and extends secondarily its effects to others, as we see so conspicuously in the destruction of certain glands by tuberculosis or tumors. Naturally under such circumstances the symptoms of a variety of endocrine disturbances combine to form the disease picture and render the question of diagnosis at times a difficult one. It is an unquestionable fact, however, that a pituitary cachexia, attributable to tuberculosis or embolism of that gland, is made apparent through functional influences upon other glands quite distinct from those which constitute the simultaneous manifestations of this sclerotic diathesis of all the numerous endocrine glands. And a simultaneous luetic infection of several glands of internal secretion is always possible of identification.—F. Hochstetter (*Medizinische Klinik*, May 21, 1922).

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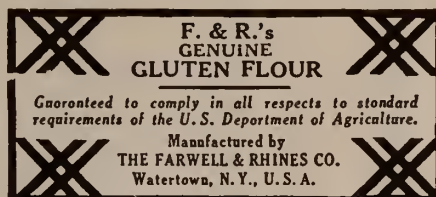
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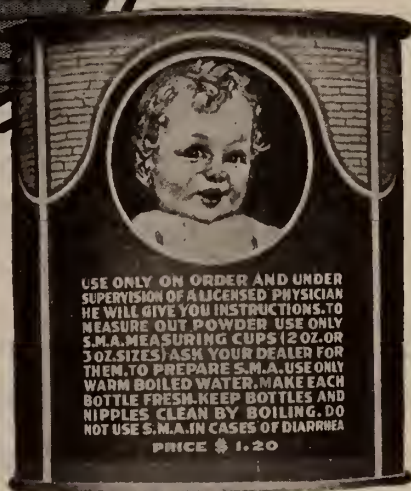
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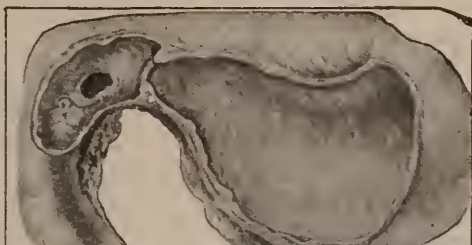
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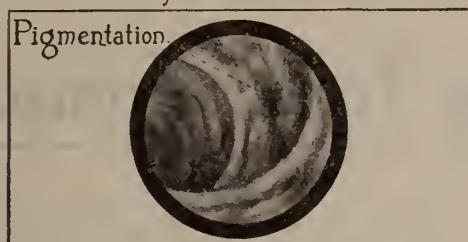
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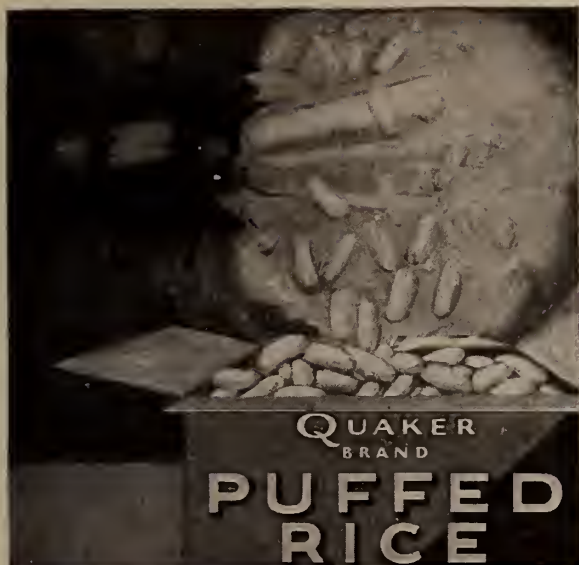
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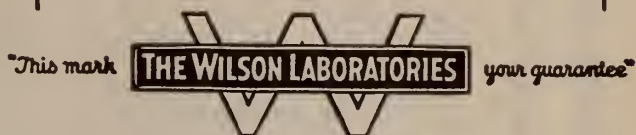
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have recently been exploited by the Surgeons, "in congress assembled" as being diseases curable by the knife and the saw.

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Frank "BRONCHIAL" ASTHMA and HAY FEVER are conditions due to a susceptibility to certain proteins, the first to the proteins of the bacteria of the respiratory tract, the second to the proteins of certain pollens. Any one who has ever seen the distinct "wheal" produced by vaccinating a hay fever sufferer with the pollen to which he is "sensitive" could not be persuaded from this fact.

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Chicago

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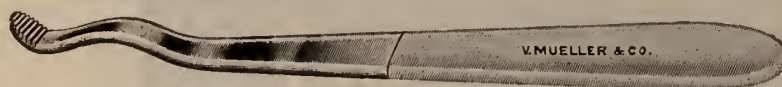


Fig. 1. Davis Semi-lunar
Cartilage Elevator

Fig. 2. Amerson's
bone elevators and
raspatories. Made
in two sizes.
Illustration S. and L.
showing actual
size.

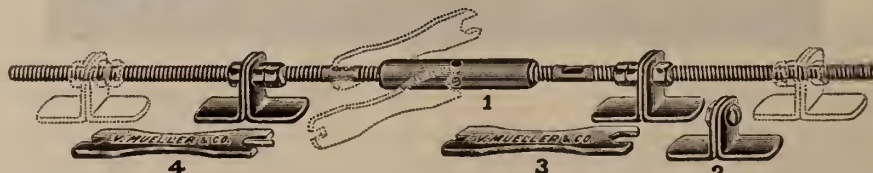
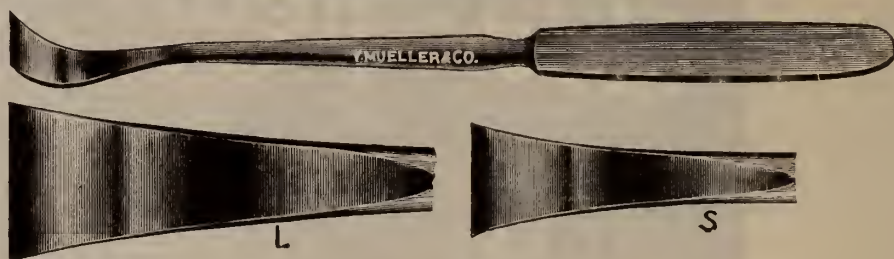


Fig. 3. Lewis Turnbuckle extension apparatus. This is a light weight extension which is supplied without the use of an extension table or extension frame. From two to four units (according to the nature of the case) are imbedded in plaster and extension made as required by turning part 1 by inserting one of the keys while the other one is holding the rod stable as shown in the illustration. In comminuted fractures the extension is useful in maintaining the length of the bone during healing.

For full description see Journal A. M. A. Jan. 14, 1922, page 108

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BOOK REVIEW

THE SURGICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month). Volume 111, Number V (Minneapolis-St. Paul Number—October, 1923), 300 pages with 200 illustrations. Per Clinic year (February, 1923, to December, 1923). Paper \$12.00; Cloth \$16.00 net. Philadelphia and London. W. B. Saunders Company.

The contributors to this volume are Drs. Adair, Cole, Culvin, Dennis, Farr, Geist, Lerche, Lewis, Litzenberg, Ritchie, Schwyzer, Thomas, and Wilcox.

RUBBER AND GUTTA PERCHA INJECTIONS. By Charles Conrad Miller, M. D., Chicago. Chicago. Oak Printing and Publishing Company. Price \$1.75.

This is a preliminary report of the use of various forms of rubber and gutta percha subcutaneously for the purpose of raising the depressed nasal bridge and filling in various tissue deficiencies. Illustrations and descriptions of the types of material used, the manner of preparation, and special syringes used by the writer.

THE CONQUEST OF NERVES. By J. W. Courtney, M.D., New York. The Macmillan Company. 1923.

This work is divided into ten chapters and treats of how Christian Science cures; the Emmanuel movement and its doctrine of health; New Thought or the Psycho-Therapy of Optimism; on Charlatantry in general, its methods and limitations; the nature and causes of functional and nervous disorder; the bodily symptoms of functional nervous

disorder; the mental and emotional aspects of functional nervous disorder; the physical treatment of functional nervous disorder.

PHYSICAL DIAGNOSIS. By Richard C. Cabot, M. D. Eighth edition revised and enlarged, with six plates and 279 figures in the text. New York. William Wood & Company. 1923. Price \$5.00 net.

In this edition there has been a complete resetting of the book. The section on Emphysema has been radically changed. The chapter on Electro-Cardiograph has been brought up to date. The value of X-ray and the diagnosis of pulmonary and genito-urinary diseases have been considerably amplified. A number of new X-ray pictures have been added.

A TREATISE ON THE DISEASES AND INJURIES OF THE RECTUM, ANUS AND PELVIC COLON. By J. Rawson Pennington, M. D. With two plates and 677 illustrations. Philadelphia. P. Blackiston's Son & Company. Price \$12.00.

The most recent treatise on proctology is twenty years old therefore this work is very timely. In recent years much has been written on this subject and in this work the subject has been brought down to date. Throughout the work the author has taken from the literature the most important fact controlling them by his own experience and for this reason little of importance has been overlooked. This work will be found invaluable by students and surgeons specializing in this field of practice.

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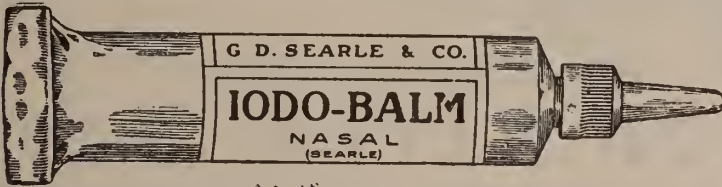
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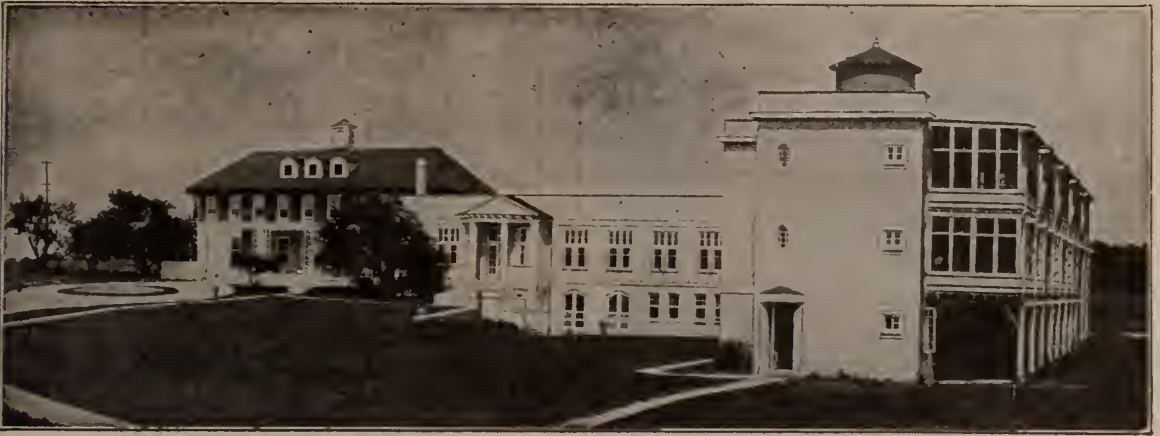
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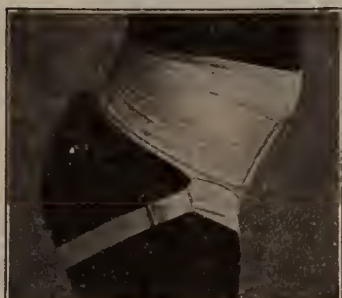
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Phenol coefficient test of Zonite and Dakin's against B Typhosus suspended in water

The test to the right shows the relative effects of Phenol, Zonite and Dakin's Solution upon typhoid bacilli when suspended in water in the absence of large quantities of organic matter.

Please note that in the absence of organic matter the variation in germicidal strength between Dakin's Solution and Zonite is almost exactly in proportion with the amount of available chlorine present.

Sample	Dilution	Minutes of Exposure to Disinfectant					Remarks
		5	7½	10	12½	15	
Zonite	1:200	-	-	-	-	-	200 300 350
	1:250	+	-	-	-	-	+ + +
	1:300	+	+	-	-	-	80 90 100
	1:350	+	+	+	-	-	=3.11
	1:400	+	+	+	+	+	
Dakin's Solution	1:100	-	-	-	-	-	100 140 180
	1:120	+	-	-	-	-	+ + +
	1:140	+	+	-	-	-	80 90 100
	1:160	+	+	+	-	-	=1.53
	1:180	+	+	+	+	-	
	1:200	+	+	+	+	+	
Phenol	1:80	-	-	-	-	-	3
	1:90	+	+	-	-	-	=1.53
	1:100	+	+	+	-	-	
	1:110	+	+	+	+	+	
PHENOL COEFFICIENT		ZONITE =3.11					
		DAKIN'S SOLUTION =1.53					
AVAILABLE CHLORINE		ZONITE =9.00 grams per liter					
		DAKIN'S SOLUTION =4.539 " " "					

May we send you complete laboratory report and a bottle of Zonite for testing purposes?



ZONITE is a concentrated, stabilized and improved form of the Carrel-Dakin Solution, prepared by an electrolytic process. Exhaustive laboratory and clinical tests indicate that Zonite more nearly approaches the ideal anti-septic than any other germicide extant. These tests are contained in a report that is now available. This report and clinical investigations show that:

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PUBLIC OPINION

My country 'tis of thee ,
Land of grape juice and tea,
Of thee I sing.
Land where we all have tried
To break the law and lied,
From every mountain side
The bootlegs spring.
My native country, thee,
Land of home brewery,
Thy brew I love.
I love thy booze and thrills,
And thy illicit stills.
The moonshine runs in rills,
From high above.

HER EXCUSE

She stood at the gate, quite free from sin,
A blue-eyed maiden, fair to see.
"Oh, good St. Peter, I want to come in,
But I haven't a thing to wear," said she.
"So I observe," said the goodly saint.
"But never you mind one bit, my dear.
You needn't blush or you needn't faint,
The girls all dress alike in here.
"But, tell me, how came you in this sad plight?"
The maiden sighed and she hung her head,
While the pearly tears fast bedimmed her sight,
"I died in my bathing-suit," she said.

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Men whom the spoils of office cannot buy;

Men who possess opinions and a will;

Men who have honor; men who will not lie;

Men who can stand before a demagogue

And damn his treacherous flatteries without winking;

Tall men, sun crowned, who live above the fog

In public duty and in private thinking."—J. B. McCann, M. D., in International Journal of Surgery.

ARTHUR'S LAMENT

In the gloaming, oh! my darling

When the lights are dim and low,

That your face is power painted

How am I, sweetheart, to know?

Twice this month I've had to bundle

Every coat that I possess

To the cleaner's—won't you, darling,

Love me more and powder less?—Anon.

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DIFFERENCE IN HOBBIES

This story is told of a former commissioner of the City of Washington, D. C. After taking office he set forth to acquaint himself with all the city activities.

In due course he reached St. Elizabeth's, the hospital for the insane. One of the doctors told him to just wander about the place and take his time to see it all thoroughly, warning him to humor any of the patients with whom he might come in contact.

Some time later he was amused to find a patient who was having trouble trying to ride a wheelbarrow.

"That is a fine horse you have here," he said.

"This is no horse," said the lunatic sourly. "This is my hobby."

"I thought it was the same thing," said the commissioner, trying to be agreeable.

"Don't you know the difference between a hobby and a horse?" demanded the patient. "Well, you can get off of a horse."

THE RULING PASSION

Doctor: "Temperature 104. That's bad!"

Golfing Patient: "What's bogey, 'doc'?"

NOT VERY LATE

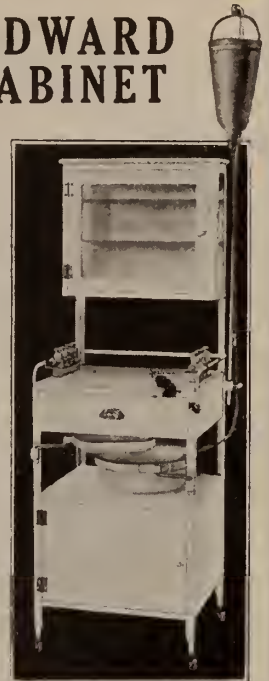
A Great Bend man 'phoned his wife, "I'll be late getting home." There was a pause while the head of the house spoke, and then he answered, "Oh, five or six minutes."—*Great Bend Tribune.*

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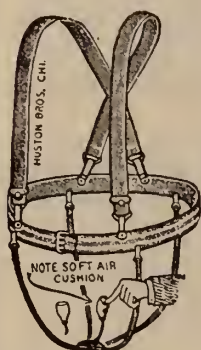
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*Every one of the cases cited is an authentic incident of our experience—and there are many others.

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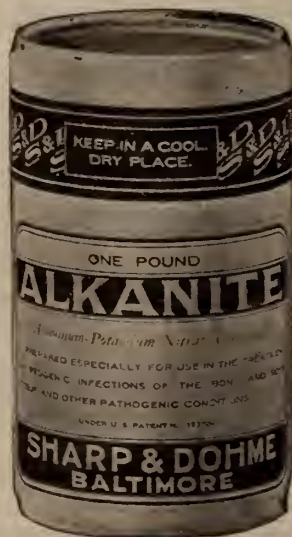
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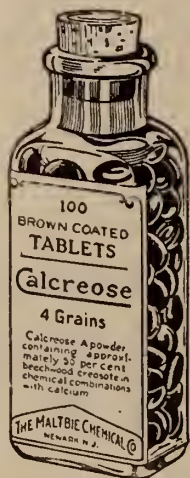
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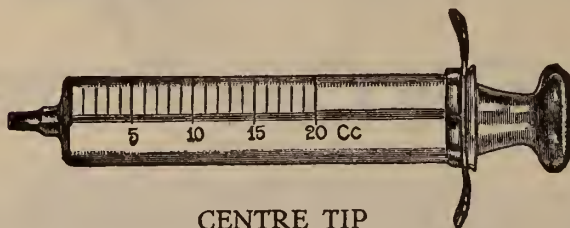
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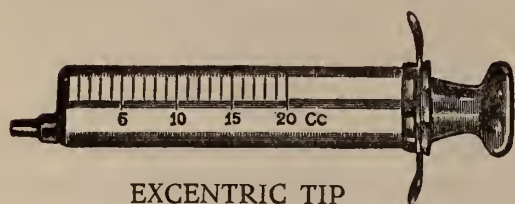
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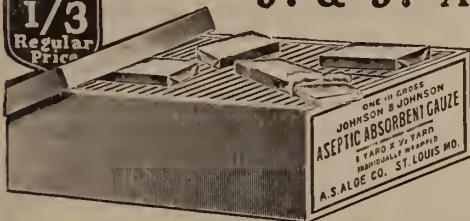
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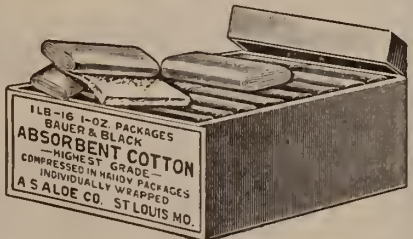
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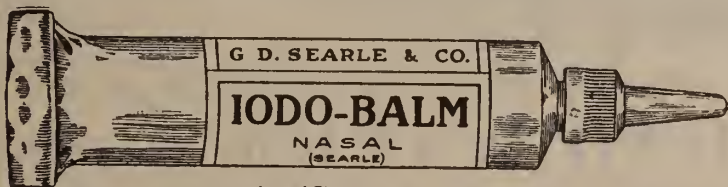
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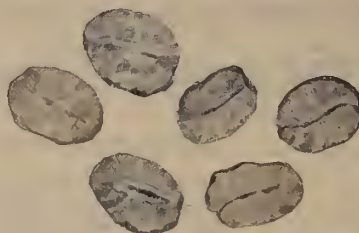
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Book Reviews

GYNECOLOGY. By William P. Graves, M. D., Professor of Gynecology at Harvard Medical School. Third Edition. Thoroughly Revised. Octavo volume of 936 pages with 388 half-tone and pen engravings and 146 microscopic drawings, 103 of the illustrations in colors. Philadelphia and London: W. B. Saunders Company. 1923. Cloth, \$9.00 net.

In this work the original arrangement of subjects has been followed. To bring the work up to date two hundred changes or more have been made in the text and illustrations in the way of additions, omissions and corrections. A number of new operations have been added, many additions and substitutions have been made in the drawings from microscopic sections.

A MANUAL OF THE PRACTICE OF MEDICINE. By A. A. Stevens, M. D., Professor of Applied Therapeutics in the University of Pennsylvania. Eleventh Edition. Entirely Reset. 12mo of 645 pages, illustrated. W. B. Saunders Company, Philadelphia and London. 1923. Cloth, \$3.50 net.

In this edition the text has been carefully revised throughout and much new material has been added, many sections have been entirely rewritten. This work will prove beneficial as a ready reference work for students.

CLINICAL DIAGNOSIS. By Laboratory Methods. A Working Manual of Clinical Pathology. By James Campbell Todd, M. D., Professor of Clinical Pathology, University of Colorado. Fifth Edition. Enlarged and Reset. Octavo of 762 pages with 325 illustrations, 29 in colors. Philadelphia and London: W. B. Saunders Company. Cloth, \$6.00 net.

In this edition the scope has been somewhat extended and the size considerably increased, much new material has been added. Each chapter has been thoroughly revised in the light of numerous advances in the field of laboratory methods since the previous edition. Many sections have been entirely rewritten.

INTRODUCTION TO MEDICAL BIOMETRY AND VITAL STATISTICS. By Raymond Pearl, Ph. D., Professor of Biometry and Vital Statistics, Johns Hopkins University. Octavo of 379 pages, illustrated. Philadelphia and London: W. B. Saunders Company. Cloth, \$5.00 net.

This work is the outgrowth of many years' experience on the part of the author in attempting to teach biometric methods to biologists and medical men.

This book is written for the medical reader. Biometric methods today have a secure place in general biology. Their use is developing in the medical field with extraordinary rapidity at the present time and for this reason the work is very timely and will be found very valuable to physicians and surgeons.

BLOOD CHEMISTRY COLORIMETRIC METHODS FOR GENERAL PRACTITIONERS WITH CLINICAL COMMENTS AND DIETARY SUGGESTIONS. By Willard J. Stone, M. D., New York. Paul E. Hoeber, Inc. 1923. Price, \$2.25.

Biological chemistry is receiving much deserved attention at the present time. This work brings the subject up to date and will assist materially those engaged in clinical medicine and private practice. Dr. Stone has given in detail the most valuable clinical method of biochemistry. Those already familiar with this subject will find the work useful for reference, while those who have been discouraged by the mass of detail given in more exhaustive text-books will find it a clear and accurate guide.

INTERNATIONAL CLINICS. A quarterly of illustrated Clinical Lectures and Especially Prepared Articles. Edited by Henry W. Cattell, M. D. Volume 3. Thirty-third Series. 1923. Philadelphia and London: J. B. Lippincott Company.

This volume contains articles and clinical lectures from many of the leading men throughout the country. It includes treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynaecology and all the other branches of medicine and surgery.

ABT'S PEDIATRICS. By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. In eight octavo volumes, totaling 8,000 pages with 1,500 illustrations, and separate Desk Index volume free. Now ready. Volume I containing 1,240 pages with 284 illustrations. Volume II containing 1,025 pages with 180 illustrations. Philadelphia and London: W. B. Saunders Company. 1923. Cloth, \$10.00 per volume. Sold by subscription.

This system of Pediatrics is a collection of monographic treatises in diseases of infancy and childhood. This work should prove of value to the practitioner, student and teacher.

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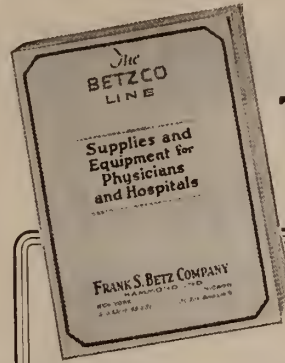
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ON IMPETIGO HERPETIFORMIS

Two strumectomized women of forty-three and forty-five years manifested tetanic symptoms for about a year, then suddenly appeared a pustular grouped eruption, limited at first, later spreading over the whole body, of the type of impetigo herpetiformis. The evident relationship to the tetany pointed to failure of parathyroid function as the cause of the eruption. This form of skin disease has been observed principally in pregnant women in whom parathyroid insufficiency was caused by the strain put upon those glands by the generative organs.—E. Schardon (*Archiv für Dermatologie und Syphilographie*, 132:108).

THE DOCTOR WAS TO BLAME

"In the nighttime or the daytime, he would rally brave and well.

Tho the summer lark was fying, or the frozen lances fell.

Knowing, if he won the battle, they would praise their Maker's name,

Knowing if he lost the battle, then the doctor was to blame."

WILL CARLETON.

THE YANKS ARE COMING

"The Yanks are coming," remarked the dentist, as he prepared his patient for the operation.

The New York Academy of Medicine

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LONGER THAN ONE WEEK AFTER THE LAST
DATE ON THE SLIP UNLESS PERMISSION FOR ITS
RENEWAL BE OBTAINED FROM THE LIBRARY.

APR 21 '20

